

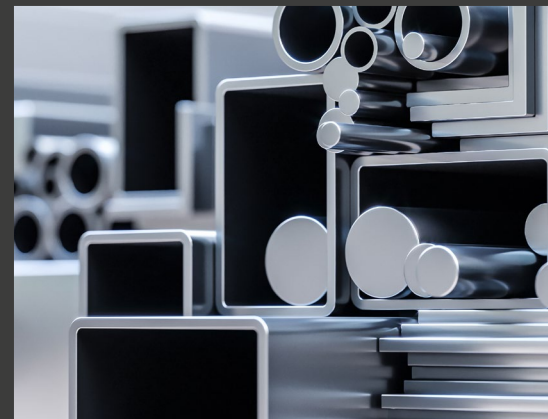


**STRUB**  
SWISS TRIBOLOGY

# INDUSTRY

## CATALOG

Gear oils industry  
Slideway oils  
Hydraulic oils  
Vacuum pump oils  
Compressor oils  
Various oils industry  
Turbine oils  
Cylinder oils  
Heat transfer oils  
Spindle fluids  
Greases  
Special greases  
Pastes  
Silicone greases  
Cooling lubricants  
Suspending agent  
Defoamer Cooling lubricants  
Cutting oils  
Thread Cutting Oils & Pastes  
Punching oils  
Fast evaporating punching oils  
Hardening oils  
Minimum quantity lubricants  
Drawing and forming oils  
Grinding oils  
Lapping and honing oils  
Erosion oils  
Silicone oils  
Forming pastes  
Die lubricant  
Special products  
Mould release agent



**2023**

Gear oils industry	3.021	4
Slideway oils	3.040	10
Hydraulic oils	3.050	12
Vacuum pump oils	3.063	26
Compressor oils	3.064	29
Various oils industry	3.065	35
Turbine oils	3.066	40
Cylinder oils	3.067	42
Heat transfer oils synt	3.081	44
Spindle fluids	3.112	46
Greases	3.180	52

# Content

STRUB has the right lubricant for every customer. Our products are highly developed, always technically up to date and optimised for every application.

Special greases	3.181	68
Paste	3.190	70
Silicone grease	3.200	80
Cooling lubricants	3.400	82
Suspending agent	3.510	96
Defoamer Cooling lubricants	3.520	100
Cutting oils	3.410	104
Thread Cutting Oils & Pastes	3.411	110
Punching oils	3.420	112
Fast evaporating punching oils	3.421	116

Hardening oils	3.075	118
Minimum quantity lubricants	3.425	122
Drawing and forming oils	3.430	124
Grinding oils	3.440	132
Lapping and honing oils	3.450	136
Erosion oils	3.460	138
Silicone oils	3.100	140
Forming pastes	3.470	142
Die lubricant	3.490	144
Special products	3.675	147
Mold release agent	3.085	150

# ABOUT US

We have a long and successful history

The name Strub stands for quality and innovation in all areas of tribology. Since its foundation in 1921, the family business has been in the hands of the Strub family. The basis of our success is the principle of applying the knowledge gained from over 100 years of tradition and experience to innovative ideas. In doing so, we always strive for sensible and environmentally friendly solutions.

**1921**

Company formation

**110+**

Employees

**1600+**

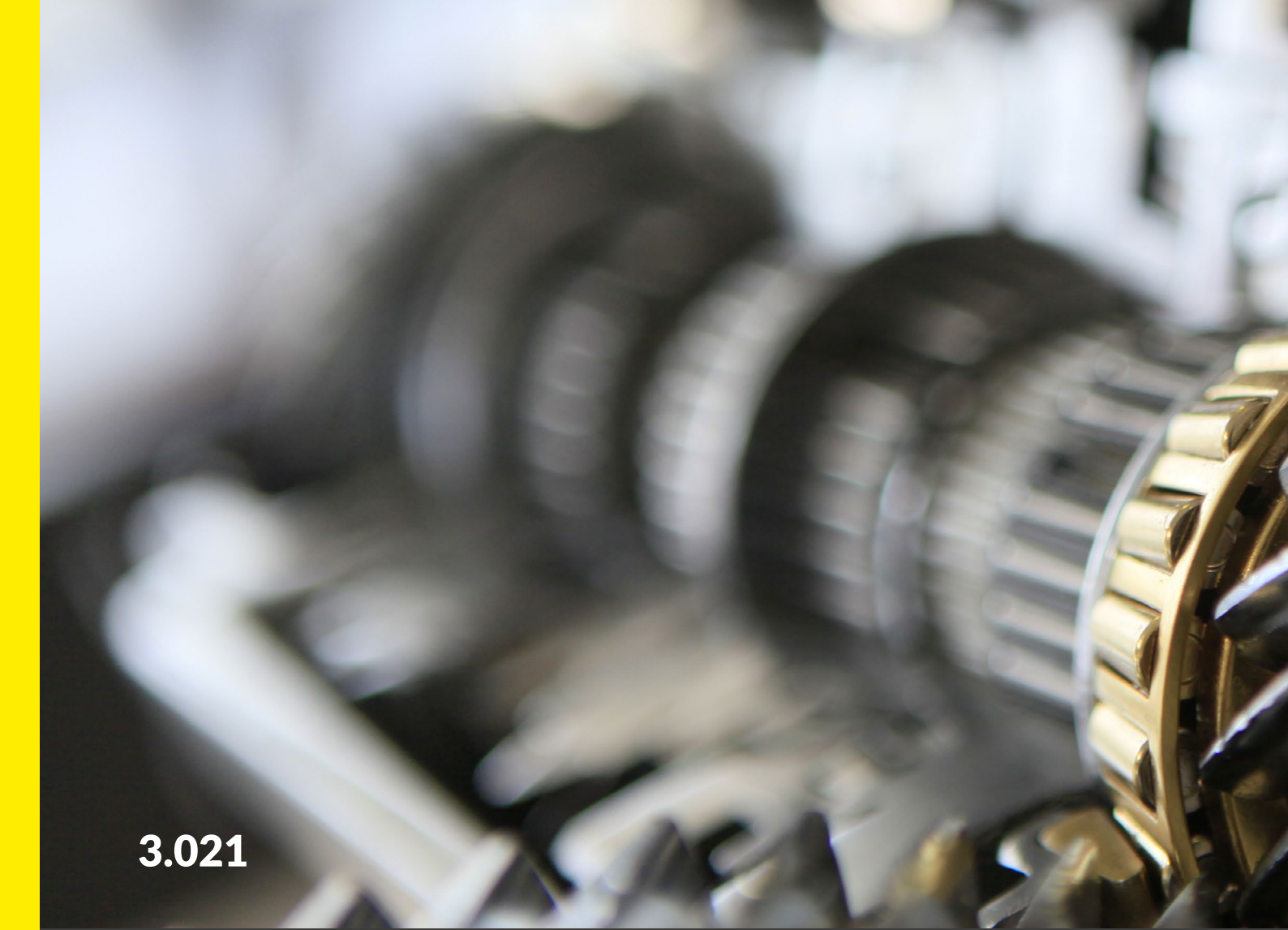
Products

## What distinguishes us

Analytics, development and production under one roof

Flexibility, reliability and a seamless after-sales service are just as traditionally anchored in our corporate policy as the smooth functioning of our lubricants and technical cleaning agents used worldwide. Service is at the heart of everything we do to meet your needs and questions in the world of tribology.



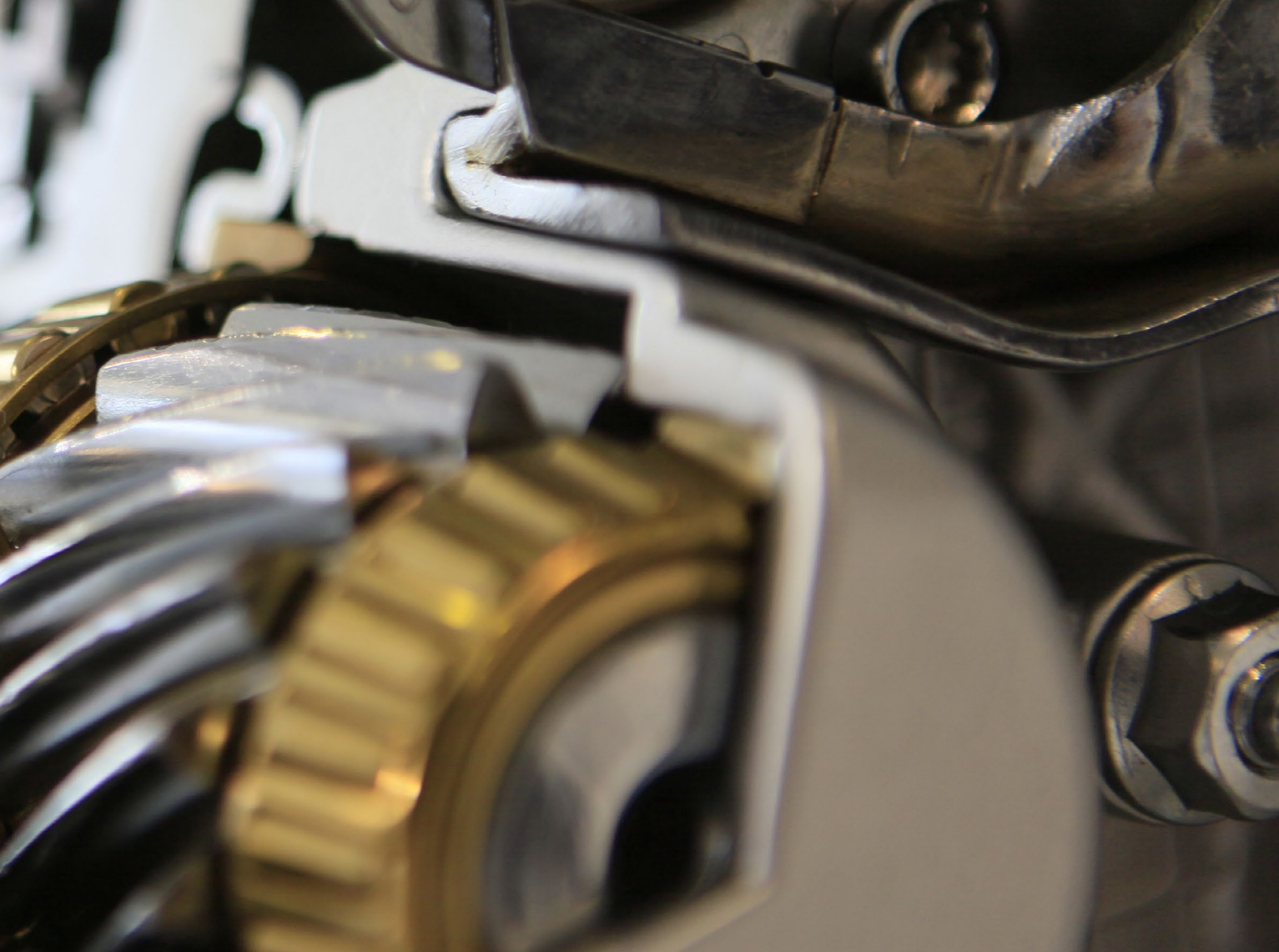


**3.021**

## **GEAR OILS INDUSTRY**

STRUB offers you a wide range of industrial lubricants specially designed for the lubrication of your gears and all mechanisms subject to extreme temperature and / or load conditions. Whether

mineral oil-based, semi-synthetic or fully synthetic. In addition, STRUB has a range of high-quality biodegradable oils.



STRUB Vulcogear EP	6
STRUB Vulcogear EP MoS2 / HD	6
STRUB Vulcogear Synt EP	7
STRUB Vulcogear O.A.P. XMP Serie	8
STRUB Planto Syntgear	9

## STRUB Vulcogear EP

Industrial high-pressure gear oils

### DESCRIPTION

STRUB Vulcogear EP are industrial high pressure gear oils based on mineral oil. STRUB Vulcogear EP are lead and chlorine free.

### APPLICATION

For lubrication of industrial gears of any type and design. Can also be used in working machines, conveyors, etc

### SPECIFICATIONS

**DIN** 51517 part 3, Lubricating oils CLP  
**ISO** 12925-1 CKC/D  
**AGMA** 9005-E02,  
**U.S. Steel** 224,  
**SEB**-181-226  
**Cincinnati** EP Gear Oils  
**David Brown** S1.53.101

ART.-NO.	ARTICLE	PACKAGE
30013	Vulcogear EP 68	5l / 10l / 20l / 60l / 200l / 1000l
30014	Vulcogear EP 100	5l / 10l / 20l / 60l / 200l / 1000l
30015	Vulcogear EP 150	5l / 10l / 20l / 60l / 200l / 1000l
30752	Vulcogear EP 220	5l / 10l / 20l / 60l / 200l / 1000l
30739	Vulcogear EP 320	5l / 10l / 20l / 60l / 200l / 1000l
30018	Vulcogear EP 460	5l / 10l / 20l / 60l / 200l / 1000l
30020	Vulcogear EP 680	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcogear EP MoS2 / HD

Industrial high-pressure gear oils with solid lubricant

### DESCRIPTION

STRUB Vulcogear EP MoS2 are modern, mineral oil-based industrial high-pressure gear oils which are provided with a solid lubricant package to increase the mechanical load capacities.

### APPLICATION

In highly loaded industrial gearboxes, such as spur, bevel, planetary and worm gearboxes, especially at low circumferential speeds and shock loads.

### SPECIFICATIONS

**DIN** 51517 Teil 3, Lubricating oils CLP  
**ISO** 12925-1 CKC/D  
**AGMA** 9005-E02,  
**U.S. Steel** 224,  
**SEB**-181-226  
**Cincinnati** EP Gear Oils  
**David Brown** S1.53.101

ART.-NO.	ARTICLE	PACKAGE
32757	Vulcogear EP 220 MoS2 HD	5l / 10l / 20l / 60l / 200l / 1000l
32624	Vulcogear EP 320 MoS2	5l / 10l / 20l / 60l / 200l / 1000l
30021	Vulcogear EP 680 MoS2	5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Vulcogear Synt EP

(polyglycol)

Fully synthetic ultrahigh-pressure gear oils for industrial plants

## DESCRIPTION

STRUB Vulcogear Synt EP are synthetic industrial gear oils based on polyalkylene glycols

## APPLICATION

For the lubrication of worm, spur, bevel and planetary gears exposed to high pressure and high temperature loads. Can be used in industrial plants, working machines and rail vehicles. For plain and roller bearings in hoists, calenders, rolling mills, paper machines, crushers, kneaders, conveyors, etc.

ART.-NO.	ARTICLE	PACKAGE
33323	Vulcogear Synt EP 68	5l / 10l / 20l / 60l / 200l / 1000l
30290	Vulcogear Synt EP 100	5l / 10l / 20l / 60l / 200l / 1000l
30617	Vulcogear Synt EP 150	5l / 10l / 20l / 60l / 200l / 1000l
30577	Vulcogear Synt EP 220	5l / 10l / 20l / 60l / 200l / 1000l
31020	Vulcogear Synt EP 320	5l / 10l / 20l / 60l / 200l / 1000l
30764	Vulcogear Synt EP 460	5l / 10l / 20l / 60l / 200l / 1000l
32417	Vulcogear Synt EP 680	5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Vulcogear O.A.P. XMP Serie

Fully synthetic ultrahigh-pressure gear oils for industrial plants

## DESCRIPTION

Fully synthetic ultrahigh-pressure gear oils for industrial plants based on polyalphaolefins (PAO).

## APPLICATION

For lubrication of spur, bevel and planetary gears exposed to strong pressure and high temperature loads, gears in plastic extruders, modern highly loaded gears in the paper, steel, oil, wood and cement industries. For optimum protection and long oil life, especially under extreme conditions. Specially formulated for protection against micropitting in modern case-hardened gears at low and high temperatures. Although STRUB Vulcogear O.A.P XMP is compatible with mineral oil products, mixing should be avoided due to performance degradation.

## SPECIFICATIONS

DIN 51517-3 (CLP)

Flender

AGMA 9005-D95

ART.-NO.	ARTICLE	PACKAGE
33350	Vulcogear O.A.P XMP 15	5l / 10l / 20l / 60l / 200l / 1000l
33469	Vulcogear O.A.P XMP 32	5l / 10l / 20l / 60l / 200l / 1000l
33292	Vulcogear O.A.P XMP 46	5l / 10l / 20l / 60l / 200l / 1000l
32010	Vulcogear O.A.P XMP 68	5l / 10l / 20l / 60l / 200l / 1000l
31051	Vulcogear O.A.P XMP 100	5l / 10l / 20l / 60l / 200l / 1000l
31049	Vulcogear O.A.P XMP 150	5l / 10l / 20l / 60l / 200l / 1000l
31050	Vulcogear O.A.P XMP 220	5l / 10l / 20l / 60l / 200l / 1000l
31010	Vulcogear O.A.P XMP 320	5l / 10l / 20l / 60l / 200l / 1000l
31014	Vulcogear O.A.P XMP 460	5l / 10l / 20l / 60l / 200l / 1000l
31434	Vulcogear O.A.P XMP 680	5l / 10l / 20l / 60l / 200l / 1000l



# STRUB Planto Syntgear

Environmentally friendly circulation and gear oils on synthetic basis



## DESCRIPTION

STRUB Planto Syntgear are gear oils formulated with special synthetic esters. During product development and formulation, a special additive combination was selected which protects against both normal wear and micropitting.

## APPLICATION

STRUB Planto Syntgear are used in spur, bevel, planetary and worm gear units, especially in environmentally sensitive areas, as well as for the lubrication of drives in water protection areas where oil leakage could endanger ground and surface water. For optimum protection and long oil life especially under extreme conditions. Specially developed for protection against micropitting in modern case-hardened gears at low and high temperatures.

## SPECIFICATIONS

**DIN** 51517 Teil 3: Lubricating oils CLP  
**ISO** 6743-6, ISO 12925-1:  
CKC /CKD /CKE  
**AGMA** 9005/E02: EP  
**Flender**

ART.-NO.	ARTICLE	PACKAGE
32436	Planto Syntgear 100	5l / 10l / 20l / 60l / 200l / 1000l
32438	Planto Syntgear 150	5l / 10l / 20l / 60l / 200l / 1000l
32439	Planto Syntgear 220	5l / 10l / 20l / 60l / 200l / 1000l
32440	Planto Syntgear 320	5l / 10l / 20l / 60l / 200l / 1000l
32441	Planto Syntgear 460	5l / 10l / 20l / 60l / 200l / 1000l
32442	Planto Syntgear 680	5l / 10l / 20l / 60l / 200l / 1000l



3.040

## SLIDEWAY OILS

STRUB slideway oils are special lubricants with exceptional performance. Precise infeed of the workpiece without disturbing jerky sliding during start-up and braking are the special features of these products. The products are suitable for both metal

and plastic pairings. The demulsifying behaviour, which is perfectly matched to our metalworking fluids, makes these products perfect slideway oils. STRUB slideway oils can also be used as universal lubricants for bearings and gears in machine tools.

STRUB Vulcoway

11

# STRUB Vulcoway

Highly demulsifying slideway oil as well as oil for central lubrication systems

## DESCRIPTION

Special demulsifying slideway oils and oils for central lubrication of the highest quality.

## APPLICATION

Suitable for machine tools with horizontal or vertical slides, where mixing of slideway oil and water-mixed coolant cannot be avoided, as well as for central lubrication systems.

## SPECIFICATIONS

**Slideway oil type** CGLP, DIN 51502

**Hydraulic oil type** HLP, DIN 51524 part 2 and Afnor

**Industrial gear oil type** CLP DIN 51517 part 3

**Cincinnati Machine** P-47 (ISO 68)

**Cincinnati Machine** P-50 (ISO 220)

**Cincinnati Machine** P-53 (ISO 32)

**Approvals from the most important machine manufacturers**

ART.-NO.	ARTICLE	PACKAGE
31128	Vulcoway 32+	5l / 10l / 20l / 60l / 200l / 1000l
31172	Vulcoway 46+	5l / 10l / 20l / 60l / 200l / 1000l
30937	Vulcoway 68+	5l / 10l / 20l / 60l / 200l / 1000l
30936	Vulcoway 100+	5l / 10l / 20l / 60l / 200l / 1000l
31140	Vulcoway 150+	5l / 10l / 20l / 60l / 200l / 1000l
31047	Vulcoway 220+	5l / 10l / 20l / 60l / 200l / 1000l
32043	Vulcoway 320+	5l / 10l / 20l / 60l / 200l / 1000l



3.050

## HYDRAULIC OILS

STRUB hydraulic oils are suitable for all stationary and mobile hydraulic systems. STRUB Vulcolube products are powerful and support the energy-efficient operation of your equipment with maximum oil life. These products

are available on a mineral oil basis, as synthetic and biodegradable fluids. For systems with increased fire protection requirements, we also offer all types of flame-retardant hydraulic fluids.

STRUB Vulcolube EP VI (Typ HVLP)	14	STRUB Hydrosynt HEES	17
STRUB Vulcolube EP VI 300 ZF ISO 32	15	STRUB Vulcolube Synt HEES	18
STRUB Vulcolube EP VI 300	15	STRUB Vulcolube HLP	19
STRUB Vulcosafe HL 702	16	STRUB Vulcolube HLP-D	20
STRUB Vulcosafe HFD-U	16	STRUB Vulcolube HLP-D ZF	21



STRUB Vulcolube HLP-D VI	21	STRUB Vulcobase P 46	25
STRUB Vulcolube HLP ZF	22		
STRUB Vulcolube EP VI ZF ISO	23		
STRUB Vulcolube HLP-D ZF	24		
STRUB Vulcolube O.A.P.	25		

# STRUB Vulcolube EP VI (Typ HVLP)

Multigrade high performance hydraulic oil

## DESCRIPTION

STRUB Vulcolube EP VI are for all hydraulic systems in industry, construction, transport and agriculture.

## APPLICATION

Hydraulic oils for virtually all hydraulic systems as well as lubricating oils for plain and roller bearings, machine tools, compressors, vacuum pumps, gear-boxes, circulation systems, for control and regulating devices and many other applications. The choice of this type of oil and the optimum viscosity is based on the respective designer's specifications. Application primarily in systems which are exposed to strong irregular, i.e. low and high (outside) temperatures.

## SPECIFICATIONS

**DIN** 51524 Teil 3, Hydraulic oils HVLP

**AFNOR** NF E 48-603 HV

**AFNOR** NF E 48-690, NF E 48-691

**Filterability**

**CETOP RP** 124H und Pall Filterability

**Cincinnati** Milacron P-68, 69, 70

**Denison** HF- 0, HF- 2

**Sperry Vickers** M-2950-S (35VQ25)

ART.-NO.	ARTICLE	PACKAGE
30338	Vulcolube EP VI 15	5l / 10l / 20l / 60l / 200l / 1000l
30339	Vulcolube EP VI 22	5l / 10l / 20l / 60l / 200l / 1000l
30340	Vulcolube EP VI 32	5l / 10l / 20l / 60l / 200l / 1000l
30341	Vulcolube EP VI 46	5l / 10l / 20l / 60l / 200l / 1000l
30053	Vulcolube EP VI 68	5l / 10l / 20l / 60l / 200l / 1000l
32810	Vulcolube EP VI 100	5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Vulcolube EP VI 300 ZF ISO 32

Zinc-free multigrade hydraulic oil

## DESCRIPTION

STRUB Vulcolube EP VI 300 ZF ISO 32 is a mineral oil based multigrade hydraulic oil. It is intended for use in highly stressed hydraulic systems which require good ultra-fine filterability, wear and corrosion protection properties.

## APPLICATION

STRUB Vulcolube EP VI 300 ZF ISO 32 is particularly suitable for hydraulic systems which require a lubricant with very low viscosity-temperature dependence. This applies, among other things, to systems which are exposed to strongly changing or low outside temperatures.

## SPECIFICATIONS

DIN 51524 – 3 (HVLP)

ART.-NO.	ARTICLE	PACKAGE
33044	Vulcolube EP 300 ZF 32	5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Vulcolube EP VI 300

Multigrade hydraulic oil

## DESCRIPTION

STRUB Vulcolube EP VI 300 is a mineral oil-based multigrade hydraulic oil.

## APPLICATION

STRUB Vulcolube EP VI 300 is particularly suitable for hydraulic systems which require a lubricant with very low viscosity-temperature dependence. This applies, among other things, to systems which are exposed to strongly changing or low outside temperatures.

## SPECIFICATIONS

DIN 51524 – 3 (HVLP)

ART.-NO.	ARTICLE	PACKAGE
30342	Vulcolube EP VI 300 ISO 15	5l / 10l / 20l / 60l / 200l / 1000l
30343	Vulcolube EP VI 300 ISO 32	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcosafe HL 702

Flame retardant hydraulic fluid

### DESCRIPTION

Flame retardant, environmentally friendly hydraulic fluid based on water-glycol.

### APPLICATION

For hydraulic systems, if there is a fire hazard due to heat or ignition sources in the vicinity, e.g. foundry / press shop. We recommend having the HFC fluids sporadically analyzed in our laboratory. This allows any water losses to be detected and corrected.

### SPEZIFIKATIONEN

**Typ HFC** according to marking of DIN standard 51502  
**ISO 6743/4**

ART.-NO.	ARTICLE	PACKAGE
30167	Vulcosafe HL 702	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcosafe HFD-U

Flame retardant ester based hydraulic fluid



### DESCRIPTION

STRUB Vulcosafe HFD-U are flame retardant, biodegradable, environmentally friendly Hydraulic fluids based on synthetic esters.

### APPLICATION

For hydraulic systems where there is a risk of fire due to heat or ignition sources in the vicinity, e.g. foundry / press shop.

### SPECIFICATIONS

**Typ HFD-U** according to marking of DIN standard 51502  
**VDMA-** standard sheet 24 317

ART.-NO.	ARTICLE	PACKAGE
33443	Vulcosafe HFD-U 802 ISO 22	5l / 10l / 20l / 60l / 200l / 1000l
33445	Vulcosafe HFD-U 802 ISO 32	5l / 10l / 20l / 60l / 200l / 1000l
31094	Vulcosafe HFD-U 802 ISO 46	5l / 10l / 20l / 60l / 200l / 1000l
31375	Vulcosafe HFD-U 902 ISO 68	5l / 10l / 20l / 60l / 200l / 1000l



# STRUB Hydrosynt HEES

Biodegradable hydraulic oils



## DESCRIPTION

Synthetic, mineral oil-free, biodegradable and extremely shear-stable multigrade hydraulic oils.

## APPLICATION

For almost all hydraulic systems elastomer compatible, especially with required environmental compatibility, hydraulic engineering, fresh water extraction, floating dredgers, water boats, sluices, food industry, cold stores, forestry, etc. For hydraulic systems of construction machinery, vehicles, machine tools, presses and other equipment. Mixing with mineral oil no longer ensures biodegradability. Hydrosynt HEES ISO 15 is a special grade and can be classified as nwg (non-water hazardous).

## SPECIFICATIONS

**HEES**, DIN 51524 part 2 and 3  
**VDMA** 24568  
**Mannesmann Rexroth** RD 90221

ART.-NO.	ARTICLE	PACKAGE
32469	Hydrosynt HEES 15	5l / 10l / 20l / 60l / 200l / 1000l
30344	Hydrosynt HEES 22	5l / 10l / 20l / 60l / 200l / 1000l
30345	Hydrosynt HEES 32	5l / 10l / 20l / 60l / 200l / 1000l
30488	Hydrosynt HEES 46	5l / 10l / 20l / 60l / 200l / 1000l
30346	Hydrosynt HEES 68	5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Vulcolube Synt HEES

Biodegradable hydraulic oils



## DESCRIPTION

Synthetic, based on saturated esters biodegradable shear stable high performance hydraulic oils. STRUB Vulcolube Synt HEES has an extremely favorable viscosity-temperature behavior, is equally resistant to high temperatures and low temperatures and has excellent oxidation stability. Specially selected additives prevent spontaneous oil aging and the associated deposits and gumming, even at high operating temperatures. The raw materials and the additives are environmentally compatible and, in the event of leakage, are largely degraded by microorganisms present in the soil or water. STRUB Vulcolube Synt HEES does not attack seals and machine paints, has no tendency to foam. STRUB Vulcolube Synt HEES exhibits very good wear and corrosion protection.

## APPLICATION

For almost all hydraulic systems, especially where environmental compatibility is required. For hydraulic systems of construction machinery, vehicles, machine tools, presses and other equipment such as hydraulic engineering, fresh water extraction, dredgers, water boats, locks, freight elevators, food industry, cold storage, forestry, etc. Please observe the manufacturer's instructions when switching from mineral oil to STRUB Vulcolube Synt HEES.

## SPECIFICATIONS

**ISO 15'380 HEES**  
**VDMA 24568 HEES**  
**VDMA 24568**  
**ASTM D 943**  
(Dry TOST test) > 2000 h  
**HPDSC, 220°C > 50 min.**

ART.-NO.	ARTICLE	PACKAGE
33367	Vulcolube Synt HEES 15	5l / 10l / 20l / 60l / 200l / 1000l
32273	Vulcolube Synt HEES 22	5l / 10l / 20l / 60l / 200l / 1000l
32419	Vulcolube Synt HEES 32	5l / 10l / 20l / 60l / 200l / 1000l
30218	Vulcolube Synt HEES 46	5l / 10l / 20l / 60l / 200l / 1000l
32594	Vulcolube Synt HEES 68	5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Vulcolube HLP

Multipurpose industrial and hydraulic oils

## DESCRIPTION

STRUB Vulcolube HLP are for hydraulic systems in industry, construction, transport and agriculture.

## APPLICATION

Hydraulic oil for practically all hydraulic systems as well as lubricating oil for plain and roller bearings, machine tools, compressors, vacuum pumps, gearboxes, circulation systems, for control and regulating devices and many other applications. The choice of this oil type and the optimum viscosity is based on the respective designer's specification. STRUB Vulcolube HLP 2, 5, 10, 15 can also be used as spindle oils.

## SPECIFICATIONS

**DIN 51524 Teil 2, hydraulic oil HLP, ISO 6743-4 HM, AFNOR NF E 48-603:**  
HM (Antiwear Hydraulikoel),

**AFNOR NF E 48-690, NF E 48-691:**  
**Filterability, CETOP RP 124H und Pall**  
Filterability

**Cincinnati Milacron P-68, 69, 70,**

**Denison HF-0, HF-1 HF-2**

**(ISO VG 32, 46, 68),**

**Eaton Vickers I-286-S: Pump V104C**

**Test, Eaton Vickers M-2950-S: Pump**  
35VQ25

**Test Bosch Rexroth RDE 90235**

## RELEASE

**Putzmeister concrete pumps**

WN022521 (HLP 46)

**Battenfeld (ISO VG 46)**

ART.-NO.	ARTICLE	PACKAGE
31139	Vulcolube HLP 1	5l / 10l / 20l / 60l / 200l / 1000l
30580	Vulcolube HLP 2	5l / 10l / 20l / 60l / 200l / 1000l
30329	Vulcolube HLP 3	5l / 10l / 20l / 60l / 200l / 1000l
30716	Vulcolube HLP 5	5l / 10l / 20l / 60l / 200l / 1000l
30480	Vulcolube HLP 10	5l / 10l / 20l / 60l / 200l / 1000l
30994	Vulcolube HLP 15	5l / 10l / 20l / 60l / 200l / 1000l
30330	Vulcolube HLP 22	5l / 10l / 20l / 60l / 200l / 1000l
30331	Vulcolube HLP 32	5l / 10l / 20l / 60l / 200l / 1000l
30328	Vulcolube HLP 46	5l / 10l / 20l / 60l / 200l / 1000l
30332	Vulcolube HLP 68	5l / 10l / 20l / 60l / 200l / 1000l
30333	Vulcolube HLP 100	5l / 10l / 20l / 60l / 200l / 1000l
30334	Vulcolube HLP 150	5l / 10l / 20l / 60l / 200l / 1000l
30582	Vulcolube HLP 220	5l / 10l / 20l / 60l / 200l / 1000l
30583	Vulcolube HLP 320	5l / 10l / 20l / 60l / 200l / 1000l
30584	Vulcolube HLP 460	5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Vulcolube HLP-D

Multipurpose / industrial and hydraulic oil

## DESCRIPTION

STRUB Vulcolube HLP-D are for hydraulic systems in industry, construction, transport and agriculture. Highquality multipurpose, industrial and hydraulic oils with dispersing and detergent properties.

## APPLICATION

Lubricating oil for plain and rolling bearings, machine tools, control and regulating devices, gearboxes and circulation systems. The viscosity is to be selected according to the manufacturer's specifications.

## SPECIFICATIONS

**DIN 51524** Teil 2 (with the exception of water separation)

**Daimler Benz 6722.00**

ART.-NO.	ARTICLE	PACKAGE
31069	Vulcolube HLP-D 5	5l / 10l / 20l / 60l / 200l / 1000l
31217	Vulcolube HLP-D 10	5l / 10l / 20l / 60l / 200l / 1000l
30905	Vulcolube HLP-D 22	5l / 10l / 20l / 60l / 200l / 1000l
30335	Vulcolube HLP-D 32	5l / 10l / 20l / 60l / 200l / 1000l
30336	Vulcolube HLP-D 46	5l / 10l / 20l / 60l / 200l / 1000l
30337	Vulcolube HLP-D 68	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcolube HLP-D ZF

Zinc-free multipurpose / industrial and hydraulic oil

### DESCRIPTION

STRUB Vulcolube HLP-D ZF are newly formulated hydraulic oils based on solvent-refined base oils. They are free of zinc and offer additional application advantages.

### APPLICATION

For machine tools and hydraulic systems in case of possible water ingress. Hydraulic systems in industry, construction, transport and agriculture. The zinc-free products were developed for hydrostatic, oil-hydraulic systems in mobile and stationary use. HLPD- ZF is particularly suitable for modern hydraulic systems in industry where the use of hydraulic oils according to DIN 51524 T.2 is prescribed. HLP D-ZF can also be used for the lubrication of smaller industrial gearboxes where a CLP fluid is required.

### SPECIFICATIONS

**DIN 51524 Part 2 + DIN 51517 Part 3** (and is referred to as HLPD according to DIN 51502) / SEB 181.222

ART.-NO.	ARTICLE	PACKAGE
32975	Vulcolube HLP-D ZF 32	5l / 10l / 20l / 60l / 200l / 1000l
33349	Vulcolube HLP-D ZF 150	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcolube HLP-D VI

Multigrade hydraulic oil with good detergent and dispersant properties (DD)

### DESCRIPTION

Zinc-containing hydraulic oils with very good viscosity-temperature behavior and dispersing properties.

### APPLICATION

For heavy-duty hydraulic systems in industry, transport and construction, machine tools, hydro-mechanical drives, construction machinery, municipal vehicles, locks, weirs, etc.

### SPECIFICATIONS

**DIN 51 524 Teil 3 HVLP** (exception: demulsibility)  
**ISO 6743-4: HV** (with DD properties)  
**ISO 11158: HR** (with DD properties)

ART.-NO.	ARTICLE	PACKAGE
30585	Vulcolube HLP-D VI 32	5l / 10l / 20l / 60l / 200l / 1000l
30586	Vulcolube HLP-D VI 46	5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Vulcolube HLP ZF

Zinc-free multipurpose industrial and hydraulic oils

## DESCRIPTION

STRUB Vulcolube HLP ZF are newly formulated hydraulic oils based on solvent refined base oils. They are free of zinc and offer additional application advantages.

## APPLICATION

For machine tools and hydraulic systems in case of possible water ingress. Hydraulic systems in industry, construction, transport and agriculture. The zinc-free products were developed for hydrostatic, oil-hydraulic systems in mobile and stationary applications.

## SPECIFICATIONS

**DIN** 51524 Part 2 + **DIN** 51517 Part 3 (and is referred to as HLPD according to DIN 51502)/ **SEB** 181.222

ART.-NO.	ARTICLE	PACKAGE
33548	Vulcolube HLP ZF 2	5l / 10l / 20l / 60l / 200l / 1000l
31484	Vulcolube HLP ZF 5	5l / 10l / 20l / 60l / 200l / 1000l
31100	Vulcolube HLP ZF 10	5l / 10l / 20l / 60l / 200l / 1000l
32963	Vulcolube HLP ZF 15	5l / 10l / 20l / 60l / 200l / 1000l
33584	Vulcolube HLP ZF 22	5l / 10l / 20l / 60l / 200l / 1000l
31016	Vulcolube HLP ZF 32	5l / 10l / 20l / 60l / 200l / 1000l
30740	Vulcolube HLP ZF 46	5l / 10l / 20l / 60l / 200l / 1000l
31555	Vulcolube HLP ZF 68	5l / 10l / 20l / 60l / 200l / 1000l
31183	Vulcolube HLP ZF 100	5l / 10l / 20l / 60l / 200l / 1000l
32634	Vulcolube HLP ZF 150	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcolube EP VI ZF ISO

Zinc-free multigrade hydraulic oils

### DESCRIPTION

STRUB Vulcolube EP VI ZF are intended for use in highly stressed hydraulic systems requiring good ultra-fine filterability, wear and corrosion protection properties.

### APPLICATION

The focus is on hydraulic systems/machines that are exposed to highly fluctuating temperatures, e.g. hydraulic systems in industry, construction, transport and agriculture. The choice of this oil type is based on the respective designer's specifications.

### SPECIFICATIONS

**Hydraulic oils**, HVLP DIN 51524 T 3 and ISO 6743/4 HV

**Gear oil** CLP DIN 51517 T3

**Denison** HF- 0, HF- 2

**Vickers** V-104C + 35VQ25

ART.-NO.	ARTICLE	PACKAGE
32673	Vulcolube EP VI ZF 22	5l / 10l / 20l / 60l / 200l / 1000l
31181	Vulcolube EP VI ZF 32	5l / 10l / 20l / 60l / 200l / 1000l
31174	Vulcolube EP VI ZF 46	5l / 10l / 20l / 60l / 200l / 1000l
30985	Vulcolube EP VI ZF 68	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcolube EP VI ZF ISO 46 blue

Zinc-free multigrade hydraulic oils

### DESCRIPTION

STRUB Vulcolube EP VI ZF are intended for use in highly stressed hydraulic systems which require good ultrafine filterability, wear and corrosion protection properties.

### APPLICATION

The focus is on hydraulic systems/machines that are exposed to highly fluctuating temperatures, e.g. hydraulic systems in industry, construction, transport and agriculture. The choice of this oil type is based on the respective designer's specification.

### SPECIFICATIONS

**Hydraulic oils**, HVLP DIN 51524 T 3 and ISO 6743/4 HV

**Gear oil** CLP DIN 51517 T3

**Denison** HF- 0, HF- 2

**Vickers** V-104C + 35VQ25

ART.-NO.	ARTICLE	PACKAGE
33457	Vulcolube EP VI ZF 46 blue	5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Vulcolube HLP-D ZF

Zinc-free multipurpose / industrial and hydraulic oil

## DESCRIPTION

STRUB Vulcolube HLP-D ZF are newly formulated hydraulic oils based on solvent refined base oils. They are free of zinc and offer additional application advantages.

## APPLICATION

For machine tools and hydraulic systems in case of possible water ingress. Hydraulic systems in industry, construction, transport and agriculture. The zinc-free products were developed for hydrostatic, oil-hydraulic systems in mobile and stationary use. HLPD- ZF is particularly suitable for modern hydraulic systems in industry, where the use of hydraulic oils according to DIN 51524 T.2 is prescribed. HLP D-ZF can also be used for the lubrication of smaller industrial gearboxes where a CLP fluid is required.

## Specifications

**DIN** 51524 Part 2 + DIN 51517 Part 3  
(and is referred to as HLPD according to  
DIN 51502) / **SEB** 181.222

ART.-NO.	ARTICLE	PACKAGE
32636	Vulcolube HLP-D ZF 10	5l / 10l / 20l / 60l / 200l / 1000l
31443	Vulcolube HLP-D ZF 46	5l / 10l / 20l / 60l / 200l / 1000l
31623	Vulcolube HLP-D ZF 68	5l / 10l / 20l / 60l / 200l / 1000l



## STRUB Vulcolube O.A.P.

Fully synthetic multigrade hydraulic oils

### DESCRIPTION

STRUB Vulcolube O.A.P. are high-quality lubricants for oil-hydraulic systems with hydrostatic drive (gear, vane, reciprocating pumps).

### APPLICATION

Can be used in stationary and mobile units in industry, cold stores, freight elevators, etc. For screw and piston compressors (observe regulations!). The viscosity must be selected according to the manufacturer's instructions.

### SPEZIFIKATIONEN

**DIN** 51524 / part 1, 2 + 3

**Hydraulic oil** HL, HLP, or HVLP

**Dension** HF-0, HF-1, HF-2

**Vickers** M-2950-S

**Cincinnati Milacron**

P-68 (ISO VG 32)

P-69 (ISO VG 68)

P-70 (ISO VG 46)

51506 VDL

**Compressoren oil**

ART.-NO.	ARTICLE	PACKAGE
31229	Vulcolube O.A.P. 32	5l / 10l / 20l / 60l / 200l / 1000l
31231	Vulcolube O.A.P. 46	5l / 10l / 20l / 60l / 200l / 1000l
31232	Vulcolube O.A.P. 68	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcobase P 46

Paraffin-based pure mineral oils

### DESCRIPTION

Pure mineral oils for circulating systems, air compressors, vacuum pumps, etc., and for loss lubrication.

### APPLICATION

In all cases where a mineral oil without active ingredients is prescribed.

ART.-NO.	ARTICLE	PACKAGE
31515	Vulcobase P 46	5l / 10l / 20l / 60l / 200l / 1000l



3.063

## VACUUM PUMP OILS

Excellent outgassing behaviour and optimum lubricity with simultaneous sealing of the vacuum

pump - this is what you achieve with the vacuum pump oils from STRUB.

STRUB Vulcovac 688	27
STRUB Vulcovac 100, 150	27
STRUB Vacuum pump oils STE 100	28
STRUB Vacuum pump oils 68/100	28

## STRUB Vulcovac 688

Vacuum pump oil

### DESCRIPTION

Fully synthetic special oil for slide gate and rotary vane vacuum pumps. Multi-range character: Covers viscosity classes ISO 68 and 100.

### APPLICATION

For all applications where no corrosive gases/vapors are to be extracted. For highest requirements, e.g. for Leybold-Heraeus, Busch, Rietschle and other makes. Please observe manufacturer's instructions.

ART.-NO.	ARTICLE	PACKAGE
31113	Vulcovac 688	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcovac 100, 150

Vacuum pump oil

### DESCRIPTION

Special oil for barrier and rotary vane vacuum pumps. STRUB Vulcovac contains 100 highly refined base oils produced by high-pressure hydrogenation. The specially selected additives additionally improve the aging resistance, corrosion and wear protection.

### APPLICATION

STRUB Vulcovac 100 is a universal pump oil for industrial applications. For all applications where no corrosive gases/vapors are to be extracted. For highest requirements, e.g. for Leybold-Heraeus, Busch, Rietschle and other makes.

Please observe manufacturer's instructions.

ART.-NO.	ARTICLE	PACKAGE
32412	Vulcovac 100	5l / 10l / 20l / 60l / 200l / 1000l
32413	Vulcovac 150	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vacuum pump oils STE 100

Special oils for seal and rotary vane vacuum pumps

### DESCRIPTION

STRUB vacuum pump oils STE 100 + 100 plus contain highly refined base oils produced by high-pressure hydrogenation. The specially selected additives additionally improve the aging resistance and corrosion protection. STRUB vacuum pump oil STE 100 plus contains ash-free wear protection and EP components.

### APPLICATION

For all applications where no corrosive gases/vapors are to be extracted. Especially also in the food sector as well as the pharmaceutical industry. For highest requirements, e.g. for Leybold-Heraeus, Busch, Rietschle and other makes. Please observe manufacturer's instructions.

### Specifications

DIN 51506 VB, VC, (NZ < 0.15) VBL, VCL, VDL

#### ART.-NO.

31615

#### ARTICLE

Vacuum pump oils STE 100

#### PACKAGE

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vacuum pump oils 68/100

Special lubricating oil for milking machines

### DESCRIPTION

Oxidation-resistant, high-quality special oil. Multi-range character: Covers viscosity classes ISO 68 and 100 and is colored blue.

### APPLICATION

STRUB vacuum pump oil for milking machines like Alfa Laval and other makes.

#### ART.-NO.

30273

#### ARTICLE

Vacuum pump oils 68/100

#### PACKAGE

5l / 10l / 20l / 60l / 200l / 1000l



3.064

## COMPRESSOR OILS

With the STRUB Vulcomp products, STRUB offers a powerful portfolio for all types of compressors. No matter whether piston, screw or rotary compressors in single or multi-stage design. In our range you

will find a suitable lubricant for every application. We also offer outstanding products for demanding tasks such as compressing at high pressures and temperatures or aggressive media.

STRUB Vulcomp VDL	30
STRUB Vulcomp VDL N	31
STRUB Vulcomp O.A.P.	31
STRUB Vulcomp PG Synt	32
STRUB Vulcomp BIO	32
STRUB Vulcomp HC VDL	33
STRUB Vulcomp PAG Special Synt 220	34
STRUB Vulcomp V-Classic 55	34

# STRUB Vulcomp VDL

Compressor oil based on mineral oil

## DESCRIPTION

STRUB Vulcomp VDL are highly refined mineral oils with special additives against oxidation and corrosion.

## APPLICATION

For all air compressors and air vacuum pumps for which a lubricant type VBL, VC/VCL or VDL is required. When selecting the viscosity, it is essential to observe the manufacturer's instructions. For screw and piston compressors e.g. of the manufacturers Aerzener, Alup, Atlas Copco, Balke-Dürr, Bauer, Becker, Blitz M. Schneider, Boge, Brätsch, Busch, Chiron, Compair, Fezer, Flottmann, Ganslmeir, Goldmann, Grassel, Haar, Hatlapa, Hedrich, Ingersoll-Rand, Irmer + Elze, Junkers, Kaeser, Knorr, Leobersdorfer, LeyboldHeraeus, Linde, Mahle, Man-Ghh, Mannesmann Demag Pokorny, Mehrer, J.L. Meyer, Ochsner, Claudius Peters, Rietschle, Sauer, Sulzer-Burckhardt, Uraca, Walther, Wepuko, Worthington.

Hydraulic, turbine or motor oils may be prescribed for individual types. Please observe the regulations!

## SPECIFICATIONS

DIN 51506 VDL, VCL, VBL

ART.-NO.	ARTICLE	PACKAGE
30429	Vulcomp VDL 22	5l / 10l / 20l / 60l / 200l / 1000l
30430	Vulcomp VDL 32	500ml / 5l / 10l / 20l / 60l / 200l / 1000l
30431	Vulcomp VDL 46	5l / 10l / 20l / 60l / 200l / 1000l
30432	Vulcomp VDL 68	5l / 10l / 20l / 60l / 200l / 1000l
30428	Vulcomp VDL 100	5l / 10l / 20l / 60l / 200l / 1000l
30085	Vulcomp VDL 150	5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Vulcomp VDL N

Special compressor oil

## DESCRIPTION

STRUB Vulcomp VDL N 46 and 68 are special compressor oils.

## APPLICATION

For all screw compressors (ISO VG 46 and ISO VG 68) where an extended oil change interval is specified.

## SPECIFICATIONS

**DIN** 51506 VDL  
**ISO/DP** 6521, 6743-3A, 3B

ART.-NO.	ARTICLE	PACKAGE
30433	Vulcomp VDL N 46	5l / 10l / 20l / 60l / 200l / 1000l
30019	Vulcomp VDL N 68	5l / 10l / 20l / 60l / 200l / 1000l
30820	Vulcomp VDL N 100	5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Vulcomp O.A.P.

Synthetic compressor oils

## DESCRIPTION

STRUB Vulcomp O.A.P. are synthetic compressor oils of the highest quality level. The product is based on synthetic base oils and contains special additives of the latest technology.

## APPLICATION

STRUB Vulcomp O.A.P. are suitable for highly loaded air compressors with oil lubricated discharge chambers as well as for screw and rotary compressors with oil injection cooling.

## SPECIFICATIONS

**ISO** 6743-3 DAJ  
**DIN** 51506 VDL

ART.-NO.	ARTICLE	PACKAGE
33296	Vulcomp O.A.P. 32	5l / 10l / 20l / 60l / 200l / 1000l
30153	Vulcomp O.A.P. 46	5l / 10l / 20l / 60l / 200l / 1000l
33330	Vulcomp O.A.P. 55	5l / 10l / 20l / 60l / 200l / 1000l
30993	Vulcomp O.A.P. 68	5l / 10l / 20l / 60l / 200l / 1000l
30951	Vulcomp O.A.P. 100	5l / 10l / 20l / 60l / 200l / 1000l
30244	Vulcomp O.A.P. 150	1l / 5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcomp PG Synt

Synthetic special compressor oil

### DESCRIPTION

STRUB Vulcomp PG Synt is a synthetic compressor oil based on polyalkylene glycol, developed to achieve the highest compressor performance for contact-cooled screw compressors. The product is not miscible with mineral oil, PAO, ester based lubricants!

### SPECIFICATIONS

DIN 51506 VDL, VC, VCL, VB, VBL

ART.-NO.	ARTICLE	PACKAGE
30243	Vulcomp PG Synt 46	5l / 10l / 20l / 60l / 200l / 1000l
32468	Vulcomp PG Synt 100	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcomp BIO

Fully synthetic compressor oils based on renewable raw materials



### DESCRIPTION

STRUB Vulcomp BIO are fully synthetic, environmentally friendly compressor oils based on synthetic saturated, easily biodegradable esters and a high-performance additive combination.

### SPECIFICATIONS

DIN 51506 VDL, VCL, VBL  
ISO 15380 HEES

### APPLICATION

STRUB Vulcomp BIO are rapidly biodegradable products and are primarily recommended for use in screw compressors operating in environmentally sensitive areas. STRUB Vulcomp BIO is suitable for highly loaded screw compressors especially for critical operating conditions and compression end temperatures of up to 110°C. The lubrication instructions of the compressor manufacturers must be observed.

ART.-NO.	ARTICLE	PACKAGE
32583	Vulcomp BIO 46	5l / 10l / 20l / 60l / 200l / 1000l
32600	Vulcomp BIO 68	5l / 10l / 20l / 60l / 200l / 1000l
30427	Vulcomp BIO 100	5l / 10l / 20l / 60l / 200l / 1000l



# STRUB Vulcomp HC VDL

Semi-synthetic compressor oil for use in screw and four-cell compressors.

## DESCRIPTION

The ashless long-life compressor oil with synergistically interacting, latest additives enables sticky, brown oxidation residues to become a thing of the past. STRUB HC VDL line easily lasts for 4000 operating hours, even at slightly increased oil temperatures of 70°C - 90°C.

## APPLICATION

For all screw compressors where an extended oil change interval is specified.

## Specifications

**DIN** 51506 VDL, VBL, VCL

**DIN** 51524 Teil 2 HLP

**ISO/DP** 6521, 6743-3A, 3B

ART.-NO.	ARTICLE	PACKAGE
31065	Vulcomp HC VDL 32	5l / 10l / 20l / 60l / 200l / 1000l
31066	Vulcomp HC VDL 46	5l / 10l / 20l / 60l / 200l / 1000l
32751	Vulcomp HC VDL 55	5l / 10l / 20l / 60l / 200l / 1000l
31067	Vulcomp HC VDL 68	5l / 10l / 20l / 60l / 200l / 1000l
33149	Vulcomp HC VDL 100	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcomp PAG Special Synt 220

Synthetic special compressor and gear oil

### DESCRIPTION

STRUB Vulcomp PAG Special Synt 220 is based on PAG's which are poorly soluble in hydrocarbons such as isobutylylene or phenols.

### APPLICATION

Suitable for screw and piston compressors, gearboxes, textile lubricants, chain and conveyor belts and furnace bearings. Suitable for compressors compressing the following gases: Butene (LPG's), Aethylene, Propylene, Buthylene, Butadiene, Propane, Vinyl chloride, Ammonia, Intergas (dry), Methane, Ethane. The product is not miscible with mineral oil, esters or PAO's. Have miscibility under PAG's tested beforehand. Systems should have been cleaned clean or flushed well before filling. Elastomers such as NBR, fluorosilicones or vinyl-methyl polysiloxanes are recommended at elevated operating temperatures.

### SPECIFICATIONS

DIN 51506 VDL, VCL, VC, VBL, VB

#### ART.-NO.

33196

#### ARTICLE

Vulcomp PAG Sepcial Synt 220

#### PACKAGE

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcomp V-Classic 55

High-tech lubricant for gas compressors

### DESCRIPTION

STRUB Vulcomp V-Classic 55 is a lubricant for gas compressors based on high-quality hydrocarbons. Developed with the latest additive technology, trouble-free operation is guaranteed even with aggressive media and ambient conditions.

### ANWENDUNG

STRUB Vulcomp V-Classic 55 is suitable for highly loaded gas compressors with oil-lubricated discharge chambers as well as for screw and rotary compressors with oil-injection cooling.

#### ART.-NO.

33380

#### ARTICLE

Vulcomp V-Classic 55

#### PACKAGE

5l / 10l / 20l / 60l / 200l / 1000l



3.065

## VARIOUS OILS INDUSTRY

Tailor-Made - We fulfil technical needs. If you cannot find the optimum product for your application in our range of more than 1600 lubricant specialities, we create intelligent solutions and tailor-made products

for your specific needs. Your problem is our task - call us and challenge us. We will be happy to demonstrate our capabilities to you.

STRUB Vulcibase P	36	STRUB Lubricating oil M6	38
STRUB ADL 1 – Anti Dross Liquid	36	STRUB Crane telescope Fluid	39
STRUB ADL 2 – Anti Dross Liquid	37	STRUB Vulcocircle PM 100	39
STRUB Rapeseed oil	37		

# STRUB Vulcobase P

Paraffin-based pure mineral oils

## DESCRIPTION

Pure mineral oils for circulating systems, air compressors, vacuum pumps, etc., and for loss lubrication.

## APPLICATION

In all cases where a mineral oil without active ingredients is prescribed.

ART.-NO.	ARTICLE	PACKAGE
32047	Vulcobase P 19	5l / 10l / 20l / 60l / 200l / 1000l
30375	Vulcobase P 22	5l / 10l / 20l / 60l / 200l / 1000l
31796	Vulcobase P 32	5l / 10l / 20l / 60l / 200l / 1000l
30376	Vulcobase P 68	5l / 10l / 20l / 60l / 200l / 1000l
33551	Vulcobase P 680	5l / 10l / 20l / 60l / 200l / 1000l

# STRUB ADL 1 - Anti Dross Liquid

For the application of leaded and lead-free solders

## DESCRIPTION

STRUB ADL 1 - Anti Dross Liquid for covering the solder bath of hollow wave soldering machines, especially for lead-free solders. Specially developed for Kirsten Soldering, for efficient, cost-effective prevention of dross and PACKAGE of washed-off oxides, as well as flux. For lead-free solders and solder bath temperatures up to approx. 340°C, resp. the usual bath temperatures.

## FEATURES

STRUB ADL 1- Anti Dross Liquid is a special oil based on high-quality evaporation-resistant base oils. The formulation is semi-synthetic. Selected additives improve the performance of the product.

ART.-NO.	ARTICLE	PACKAGE
30593	ADL 1	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB ADL 2 – Anti Dross Liquid

For the application also of lead-free solders

### DESCRIPTION

STRUB ADL 2 - Anti Dross Liquid for covering the solder bath of hollow wave soldering machines, especially for lead-free solders. Specially developed for Kirsten Soldering, for efficient, cost-effective prevention of dross and PACKAGE of washed-off oxides and fluxes. For lead-free solders, and solder bath temperatures up to approx. 340°C, resp. the usual bath temperatures. Applicable temperature range 230°C to approx. 340°C

### FEATURES

STRUB ADL 2 - Anti Dross Liquid is a covering liquid based on high quality evaporation resistant raw materials. The formulation is fully synthetic. Selected additives improve the performance of the product.

ART.-NO.	ARTICLE	PACKAGE
31350	ADL 2	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Rapeseed oil

Rapeseed oil for industrial applications

### DESCRIPTION

Canola oil, also called rapeseed oil or colza oil, is a vegetable oil refined from rapeseed.

### ANWENDUNG

This product is a general purpose oil and can be used for many diverse technical applications.

Among other things, it is used in:

- Hydraulic, transmission and saw chain oil
- Lubricating oil
- Hardening oil
- Formwork oil
- Lamp oil
- Feed

ART.-NO.	ARTICLE	PACKAGE
31795	Rapeseed oil	5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Lubricating oil M6

Mineral oil raffinate with EP properties and MoS2

## BESCHREIBUNG

As a running-in additive for passenger cars:

10%: Gear oil

2-3%: Engine oil

For industry:

See below Fields of application

## EIGENSCHAFTEN

MoS2 suspension in mineral oil. STRUB Lubricating Oil M6 is freely miscible with mineral, vegetable, animal or synthetic oils. When STRUB Lubricating Oil M6 is used, a molybdenum disulfide film forms on the sliding surfaces during operation, which provides emergency lubrication when the oil supply fails or the oil film breaks off. For sliding parts that operate largely in the boundary lubrication range, STRUB Lubricating Oil M6 therefore results in a noticeable reduction in friction and wear. Existing MoS2 base films are continuously renewed and supplemented with STRUB Lubricating Oil M6 during relubrication.

ART.-NO.	ARTICLE	PACKAGE
30595	Schmieroel M6	5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Crane telescope Fluid

Synthetic lubricant with PTFE

## DESCRIPTION

STRUB Crane Telescope Fluid is an adhesive synthetic lubricant with PTFE which has proven itself in the relubrication of crane telescopes.

## APPLICATION

Apply STRUB Kranteleskop Fluid with a brush, roller or cloth. Please shake before use.

ART.-NO.	ARTICLE	PACKAGE
33041	Kranteleskop Fluid	5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Vulcocircle PM 100

Special lubricants for circulation systems

## DESCRIPTION

STRUB Vulcocircle PM are special lubricants for circulation, bearing and gear lubrication in paper machines. For bearing lubrication in rolling mills (Danieli, SMS group etc). STRUB Vulcocircle PM contains specially refined base oils and the new additive technology guarantees the best pressure absorption capacity, wear protection and long-term demulsibility.

## APPLICATION

STRUB Vulcocircle PM 100 is a special lubricant for "Morgan No-Twist Rod Mill" /requirements. STRUB Vulcocircle PM for circulation systems, is suitable for the lubrication of industrial paper machines, in wet and dry operation, (up to 120°C) applicable. In rolling mills, Morgoil Bearings etc.

## Specifications

**Lubricating Oil** CL DIN 51517 Part 2 (ISO VG 100 – VG 460)

**Morgan No Twist Rod Mill Lubricant** (ISO VG 100), **Morgoil Bearing Oil** SEB 181-225, **Danieli Standard** 0.000.001 Revision 14

**SMS Group, Oelfil Bearing Lubricating Oil, Factory Standard** SN 180-3  
**Hydraulic oil** HL + HLP DIN 51524/ Part 1+ 2 (ISO VG 100)

**ISO 6743 Teil 4 HM, SEB 181 222, Thyssen TH-N 256-142, U.S. Steel 127**

ART.-NO.	ARTICLE	PACKAGE
33465	Vulcocircle PM 100	5l / 10l / 20l / 60l / 200l / 1000l



**3.066**

## TURBINE OILS

STRUB turbine oils are characterised by their excellent foaming behaviour and air separation capacity. The very high wear protection and excellent ageing resistance also

ensure long and energy-efficient operation of your system. Products of this series have been approved by well-known manufacturers and operators.

STRUB STE

41



# STRUB STE

Turbine oils and recirculating lubricants

## DESCRIPTION

Highly refined special base oils with increased viscosity index and active ingredients to increase oxidation resistance and optimize corrosion protection on steel and copper.

## APPLICATION

As lubricating and governor oil for steam, water and gas turbines. For bearing lubrication in turbines and generators and in high-speed reduction gears. These oils can also be used in vacuum pumps, compressors and hydraulic systems.

## SPECIFICATIONS

**DIN** 51515/Part 1 (L-TD),  
**DIN** 51515/Part 2 (L-TG)  
**DIN** 51506 (VBL, VCL, VDL);  
**ISO** 6521 (DAA, DAB, DAH, DAG)  
**DIN** 51517/Part 2 (Lubricant CL)  
**DIN** 51524/Part 1 (Lubricant HL)

## OEM approval

Siemens TLV 901304 and TLV 901305  
For use in Siemens turbo sets with and without gearbox Siemens industrial turbo machine specification.

ART.-NO.	ARTICLE	PACKAGE
30950	STRUB STE 32	5l / 10l / 20l / 60l / 200l / 1000l
30940	STRUB STE 46	5l / 10l / 20l / 60l / 200l / 1000l / TW
33039	STRUB STE 68	5l / 10l / 20l / 60l / 200l / 1000l



3.067

## CYLINDER OILS

STRUB cylinder oils are highly viscous special lubricants for steam systems. Due to their very high viscosity, they only become thin-bodied at higher temperatures. As a result,

they lubricate and protect reliably even in temperature ranges up to 380 °C.

STRUB Vulcolube X 1000	43
STRUB Vulcolube Hot Steam Cylinder Oil 1500	43

# STRUB Vulcolube X 1000

Cylinder oil

## DESCRIPTION

STRUB Vulcolube X 1000 is a pure, mineral oil based, high viscosity hot steam cylinder oil.

## SPECIFICATIONS

**Hot steam cylinder** oil according to DIN 51510

## APPLICATION

STRUB Vulcolube X 1000 is primarily suitable for lubricating the steam-wetted sliding parts on steam engines whose steam inlet temperature does not exceed 325°C. Also suitable as a high-viscosity lubricating oil for lubrication points with through-feed lubrication.

ART.-NO.

ARTICLE

PACKAGE

30964

Vulcolube X 1000

5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Vulcolube Hot Steam Cylinder Oil 1500

ISO VG 1500

## DESCRIPTION

STRUB Vulcolube Hot Steam Cylinder Oil 1500 is suitable for the lubrication of steam engines which are operated at high temperatures and which require high-viscosity lubricating oils of particularly good thermal stability. STRUB Vulcolube Hot Steam Cylinder Oil 1500 has very low evaporation losses even under high thermal load. This ensures lubrication of the cylinders and the parts exposed to steam. The formation of coke- and asphaltlike residues, which can be the cause of seizure of piston rings, slides and valves, is prevented. STRUB Vulcolube Hot Steam Cylinder Oils 1500 are special lubricating oils. They are manufactured from carefully selected mineral base oils and synthetic components using state-of-the-art production methods. STRUB Vulcolube hot steam cylinder oils 1500 form well adhering, highly resilient lubricating films even when used sparingly.

## APPLICATION

STRUB Vulcolube Hot Steam Cylinder Oil 1500 is recommended for use in intermittently operating steam machines as a loss lubricant at steam inlet temperatures up to 380° C. STRUB Vulcolube Hot Steam Cylinder Oil 1500 is also suitable when a high viscosity lubricating oil is required by the manufacturer, e.g. for mechanical gears, bearings and slideways.

ART.-NO.

ARTICLE

PACKAGE

33061

Vulcolube Hot Steam Cylinder Oil 1500

5l / 10l / 20l / 60l / 200l / 1000l



3.081

## HEAT TRANSFER OILS SYNT

STRUB heat transfer oils contain high-quality base oils that ensure optimum heat transfer and protect the circulation system from corrosion and wear in the long term.

STRUB Vulcotherm Synt 15	45
STRUB Vulcotherm	45

# STRUB Vulcotherm Synt 15

Synthetic high performance heat transfer fluid

## DESCRIPTION

For use in the liquid phase in closed heat transfer systems with forced circulation. Can be used over the entire operating range without pressure overlay.

## APPLICATION

Excellent for indirect heating of reactors, polymerization boilers, distillation columns, processing machines, dryers as well as heat exchangers in process plants and systems for heat recovery. The upper application limit corresponds to a feed temperature of 350°C. The film temperature should not exceed 380°C.

ART.-NO.	ARTICLE	PACKAGE
30683	Vulcotherm Synt 15	5l / 10l / 20l / 60l / 200l

# STRUB Vulcotherm

Heat transfer oils based on mineral oil

## DESCRIPTION

STRUB Vulcotherm are heat transfer oils based on solvent raffinates (-SN-) or dewaxed hydrocrack oil (-HC-).

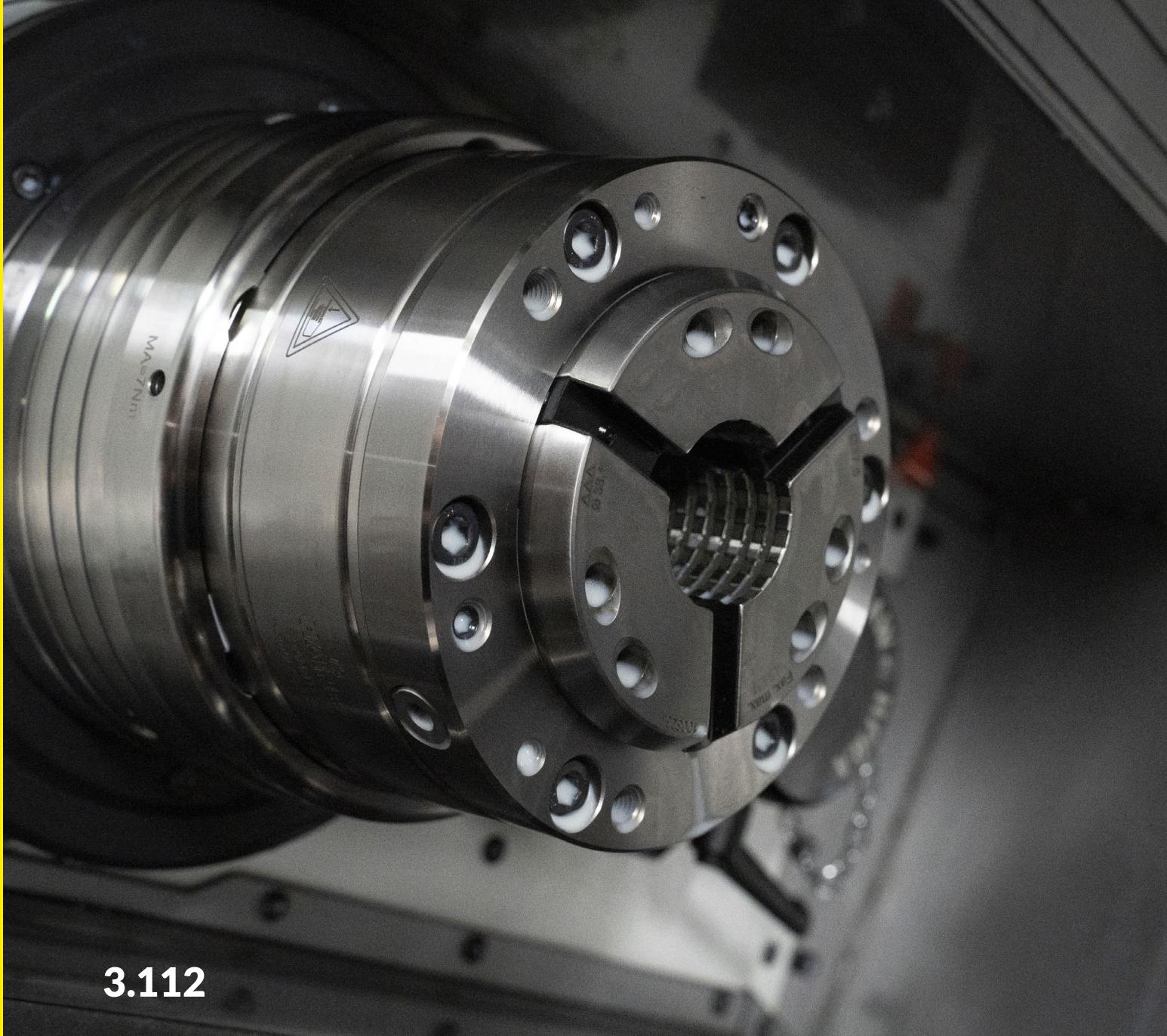
## SPECIFICATIONS

DIN 51522

## APPLICATION

As heat transfer media in industrial plants.

ART.-NO.	ARTICLE	PACKAGE
30436	Vulcotherm 22	5l / 10l / 20l / 60l / 200l
30733	Vulcotherm 32	5l / 10l / 20l / 60l / 200l
31080	Vulcotherm 32+ HC	5l / 10l / 20l / 60l / 200l
30435	Vulcotherm 100	5l / 10l / 20l / 60l / 200l



## 3.112

# SPINDLE FLUIDS

Maximum precision and performance in the manufacturing process, even at high speeds and heavy machining operations. This is only possible with an optimally cooled and lubricated spindle. Regardless of whether they are mineral oil or water-based, the finely

tuned composition of STRUB's high-purity spindle fluids ensures maximum cooling performance while at the same time providing unsurpassed protection for the spindle components.

STRUB Spindle Fluid XLI	47	STRUB Vulcolube Onikam No. 1	50
STRUB Spindelfluid XLI++ Ready	47	STRUB Spindle Cooling Oil III	51
STRUB Spindle Fluid XLI+ Concentrate	48	STRUB Spindle Oil	51
STRUB Spindle Fluid XLI++ Concentrate	49		
STRUB Vulcolube Clean HLP-D	50		

# STRUB Spindle Fluid XLI

Anti-corrosion fluid for spindle cooling systems

## DESCRIPTION

STRUB Spindle Fluid XLI is a non-toxic, environmentally friendly, glycol-free inhibitor concentrate.

## APPLICATION

The patented acid technology enables long-term corrosion protection in aqueous solutions on all metals including aluminum-iron-copper-zinc and solder alloys. Mixing ratio: 7 % by volume in tap water. STRUB Spindle Fluid XLI can be used as a live time coolant. However, the concentration should be checked periodically by refractometer (% Brix).

ART.-NO.	ARTICLE	PACKAGE
30719	Spindle Fluid XLI	5l / 10l / 20l / 60l / 200l

# STRUB Spindelfluid XLI++ Ready

Ready-to-use corrosion protection fluid for spindle cooling systems

## DESCRIPTION

STRUB Spindle Fluid XLI ++ READY is a ready-to-use corrosion protection fluid for spindle cooling systems. It is used especially where there is not enough clean water available for mixing products. The passivators contained in the product provide long-term protection of various materials against corrosion. In particular, they prevent electrochemical corrosion and protect materials such as aluminum, non-ferrous and ferrous metals, cast iron (not for galvanized surfaces) from changes or corrosion. In the case of high-speed, high-performance motor spindles, the drive shafts can be cooled trouble-free with STRUB Spindle Fluid XLI ++ Ready. The coolant can also be used in all other, less stressed systems.

## APPLICATION

STRUB Spindelfluid XLI ++ READY is ready for use, do not add water! Optimum operating conditions such as temperature-stabilized cooling unit increase the service life of the coolant. An average operating temperature of max. 25°C protects elastomers very effectively in the long term.

## SPECIFICATIONS

STEP-TEC (Approval)

ART.-NO.	ARTICLE	PACKAGE
32020	Spindle Fluid XLI++ Ready	5l / 10l / 20l / 60l / 200l

# STRUB Spindle Fluid XLI+ Concentrate

Anti-corrosion fluid for spindle cooling systems

## DESCRIPTION

STRUB Spindle Fluid XLI+ Concentrate is a corrosion protection fluid for spindle and all other cooling systems. Biostatic therefore bacteria-resistant fully synthetic fluid with long-term corrosion protection on all metals incl. aluminium-iron-copper-zinc and solder alloys.

## APPLICATION

Before initial filling with STRUB Spindlefluid XLI+ Concentrate, we recommend cleaning the system with beforehand using a mixture of 2% by volume of STRUB Spindle Fluid XLI + in water and system cleaner (Concentration used depending on the contamination, see PDS system cleaner) perform. Allow to circulate for at least 2 hours, drain the system completely and refill with 7 vol/% up to 10 vol/% Spindle Fluid XLI+ Concentrate. Check the concentration using a refractometer. Before changing the STRUB Spindle Fluid XLI+ Concentrate, which is usually done annually, we recommend adding a system cleaner beforehand (concentration used depending on the contamination, see PDS system cleaner). Leave this for 24 hours, then drain the system completely, rinse and refill the system with 7 vol/% up to 10 vol/% STRUB Spindle Fluid XLI+ Concentrate. For the preparation of STRUB Spindle Fluid XLI+ Concentrate only tap/drinking water may be used which does not exceed the following limits. Water hardness 20°dH, chloride 100 ppm, sulfate 100 ppm. The concentration should be checked periodically by refractometer (%Brix). Refractometer reading x 2.8 = vol/% effective concentration.

ART.-NO.	ARTICLE	PACKAGE
31379	Spindle Fluid XLI	5l / 10l / 20l / 60l / 200l



# STRUB Spindle Fluid XLI++ Concentrate

Coolant concentrate for engine spindle systems

## DESCRIPTION

STRUB Spindle Fluid XLI ++ Concentrate is a corrosion protection concentrate for spindle and cooling systems. The passivators contained in the product provide long-term protection against corrosion for a wide range of materials. In particular, electrochemical reactions are prevented and materials such as aluminum, cast iron, nonferrous and ferrous metals are protected. Not suitable for galvanized, zinc-plated surfaces. In high-speed, highperformance motor spindles, the drive shafts can be cooled trouble-free with STRUB Spindle Fluid XLI ++ Concentrate. The spindle fluid can also be used in all other, less stressed systems.

## APPLICATION

For the preparation of STRUB Spindle Fluid XLI++ Concentrate only tap/drinking water may be used which does not exceed the following limits. Water hardness: 20°dH, chloride 100 ppm, sulfate 100 ppm. If the listed water values are exceeded, STRUB Spindle Fluid XLI ++ Ready must be used. STRUB Spindle Fluid XLI ++ Concentrate is mixed as follows; 55 parts water and 45 parts STRUB Spindle Fluid XLI ++ Concentrate. Optimal conditions of use are temperature-stabilized cooling units to extend the service life of the coolant.

## SPECIFICATIONS

Various approvals including STEP-TEC AG

ART.-NO.	ARTICLE	PACKAGE
32029	Spindle Fluid XLI++ Concentrate	5l / 10l / 20l / 60l / 200l

## STRUB Vulcolube Clean HLP-D

Ultra-fine filtered hydraulic oils according to ISO 4406  
Purity class 15/13/10

### DESCRIPTION

STRUB Vulcolube Clean HLP-D are ultra-fine filtered hydraulic oils for hydraulic systems in laboratories and aerotechnics, for systems with servo hydraulics.

### APPLICATION

These grades are particularly suitable for the lubrication of bearings in motor and high-frequency spindles.

### SPECIFICATIONS

Hydraulic oil HLP-D

Hydraulic oil HLP DIN 51524 part 2

ART.-NO.	ARTICLE	PACKAGE
32505	Vulcolube Clean HLP-D 10	5l / 10l / 20l / 60l / 200l
32257	Vulcolube Clean HLP-D 22	5l / 10l / 20l / 60l / 200l
31700	Vulcolube Clean HLP-D 32	5l / 10l / 20l / 60l / 200l
31210	Vulcolube Clean HLP-D 46	5l / 10l / 20l / 60l / 200l
30761	Vulcolube Clean HLP-D 68	5l / 10l / 20l / 60l / 200l

## STRUB Vulcolube Onikam No. 1

Thin high-tech spindle oil according to ISO 4406  
Purity class 15/13/10

### DESCRIPTION

STRUB Vulcolube Onikam No. 1 is a special thin spindle oil. Especially suitable for Makino high performance machining centers. STRUB Vulcolube Onikam No. 1 is a specific fraction mixture with specially developed, synergistically acting additives. The excellent antioxidants and special wear protection give this high-tech spindle oil optimum performance.

### APPLICATION

This product is used for lubrication and cooling of all spindles in question (observe regulation).

ART.-NO.	ARTICLE	PACKAGE
30990	Vulcolube Onikam No. 1	5l / 10l / 20l / 60l / 200l

## STRUB Spindle Cooling Oil III

High-tech spindle cooling oil for high-speed spindles

### DESCRIPTION

STRUB Spindle Cooling Oil III is a special and thin spindle cooling oil. It consists of a specific fraction mixture with specially developed synergistically acting additives. The excellent antioxidants and the special wear protection give the high-tech spindle fluid an optimal performance.

### APPLICATION

STRUB Spindle Cooling Oil III has been specially developed for high speed spindles and is excellent for cooling for high performance machining centers.

ART.-NO.	ARTICLE	PACKAGE
33132	Spindle Cooling Oil III	5l / 10l / 20l / 60l / 200l

## STRUB Spindle Oil

High-tech spindle oil for high-speed spindles

### DESCRIPTION

STRUB Spindle Oil is a special and thin spindle oil. It consists of a specific fraction mixture with specially developed synergistic additives. The excellent antioxidants and the special wear protection give the high-tech spindle fluid an optimal performance.

### APPLICATION

STRUB Spindle Oil has been specially developed for high speed spindles and is excellent for cooling for high performance machining centers.

ART.-NO.	ARTICLE	PACKAGE
33553	Spindle Oil 2	5l / 10l / 20l / 60l / 200l
33306	Spindle Oil 5	5l / 10l / 20l / 60l / 200l
33308	Spindle Oil 10	5l / 10l / 20l / 60l / 200l



3.180

## GREASES

STRUB offers a wide range of lubricating greases for the entire spectrum in mechanical engineering, plant construction and construction machinery. STRUB

lubricating greases are indispensable for friction-free and trouble-free operation and are therefore the invisible champion among lubricants.

STRUB Zinkol Circular grease	54	STRUB Universal grease	57
STRUB gear rim grease	54	STRUB Universal Grease 1910 EP 2	58
STRUB Molymagus NT-3/ NLGI 2	55	STRUB Universal Grease 1958 EP 2	58
STRUB Molymagus PYR TT	55	STRUB Universal Grease 1958 EP 2 PTFE	59
STRUB Planto Grease EP	56	STRUB Universal Grease 1910 EP MoS2	59
STRUB Gearbox fluid grease 1740 EP 00	56	STRUB Universal Long-Life Grease 1950 EP 2	60
STRUB Gearbox fluid grease 1743 EP 000	57	STRUB Universal long-life grease 1950 MoS2	60



STRUB Universal Long-Life Grease 1950 PTFE	61	STRUB HT PU 680	64
STRUB Universal Grease 1910 PTFE	61	STRUB Vaselingrease Pharma	65
STRUB Universal Grease LX 220	62	STRUB Vaseline Technical	65
STRUB Multi Duty Grease EP 1, 2 + 3	62	STRUB Bell chain grease NLGI 0-1	66
STRUB Multi Duty Grease PAO 2-3	63	STRUB Synthetic Grease CSK	66
STRUB Multi Duty Grease PAO 2 PTFE	63	STRUB Food Grease AL LT H1	67
STRUB HT PU 550 Synth	64		

# STRUB Zinkol Circular grease

Sawing, cutting and anti-corrosion grease

## DESCRIPTION

STRUB Zinkol Circular grease is a semi-synthetic, non-toxic, well-adhering universal cutting and corrosion protection grease with good high-pressure properties and a wide range of applications. The product was developed in cooperation with the Swiss light metal industry. No built-up cutting during aluminum machining. STRUB Zinkol Circular grease is recommended for the following industries: Light metal construction, machine stores, locksmith stores, wood construction and sawmills, plumbing and sanitary stores and many more.

## APPLICATION

- Apply to both sides of the saw blade teeth during rotation. Chips no longer stick; thus no more sticking and jamming.
- For the lubrication of jigsaw blades in all metals. The use of STRUB Zinkol Circular Grease eliminates the need to rework cut edges on most materials.
- For thread cutting (internal and external threads) up to strengths of 140 kg.
- For greasing screws (protects against rust, weak acids and alkalis).
- For stripping tools on oil stones.
- For assembly work (no more need to carry oil).
- For sealing two threads to be screwed into each other with or without hemp.

ART.-NO.

ARTICLE

PACKAGE

30460

Zinkol Circular grease

ZZ-Gross / ZZ-Klein

# STRUB gear rim grease

Well-adhering, water-resistant gear grease

## DESCRIPTION

STRUB gear rim greases contain black solid lubricants to accommodate large loads, highly loaded gears with slow speeds. The good adhesion prevents spinning off under extreme conditions. VL 20 can also be sprayed effortlessly with transfer pumps. The products do not contain solvents or heavy metals.

## APPLICATION

For open lubrication points exposed to water or weather. Covered or open running sprockets, gears, racks, chains, pinions, gears etc. of sewage treatment plants, power plants, cement and sugar factories, cane mills, construction machinery, steel industry. After the areas to be lubricated have been cleaned cleanly (possibly with solvent), STRUB gear rim grease VL is applied by means of a brush, spatula or automatic lubricator.

ART.-NO.

ARTICLE

PACKAGE

33042

gear rim grease ERL

1TU-245 / PAT-400VD / PAT-SHUT / PAT-400ST / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

30026

gear rim grease VL

1TU-245 / PAT-400VD / PAT-SHUT / PAT-400ST / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

30910

gear rim grease VL 20

1TU-245 / PAT-400VD / PAT-SHUT / PAT-400ST / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

## STRUB Molymagus NT-3/ NLGI 2

Grease without drop point

### DESCRIPTION

STRUB Molymagus NT-3 is an infusible grease (without drop point) with a high content of MoS<sub>2</sub>. Careful manufacturing and the addition of high-quality additives have resulted in a grease with universal character.

### APPLICATION

Due to the high temperature application range, it can still be used as a universal grease where lithium soap greases fail the service. Fields of application are: Construction, garages, cement industry, mills, foundries, chemical industry, textile and machinery industry, transport industry, agriculture, etc.

ART.-NO.

ARTICLE

PACKAGE

30601

Molymagus NT-3/ NLGI 2

1TU-245 / PAT-400VD / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

## STRUB Molymagus PYR TT

Fluorinated grease for the food industry



### DESCRIPTION

STRUB Molymagus PYR TT is a fluorinated grease for extreme conditions in all areas of industry. Its superior resistance to high temperatures and adverse chemical conditions make it a unique lubricant. STRUB Molymagus PYR TT does not react with very many reactive chemicals such as: Oxygen, Caustic soda, Fluorine, Hydrazine, Diethylenetriamine, Fluorocarbons, Chlorine, Hydrogen, Ethanol, Hydrogen peroxide, phosphoric acid, fuming nitric acid, Sulfuric acid, Methanol, Aniline, Ammonia, Hydrochloric acid etc. The products are NSF (H1) registered and certified by NSF according to ISO 21469 and approved for use where possible food contact may occur. Manufactured to the highest quality standards in facilities where HACCP has been implemented and forms an integral part of the ISO 9001 and ISO 21469 quality and hygiene management systems.

### APPLICATION

STRUB Molymagus PYR TT is suitable for the lubrication of bearings, chains, rolling and sliding bearings, recirculating ball screws, tank pumps and valves, power generators, electrical switching devices, ultra-high vacuum equipment (electron beam microscopy), conical slide valves, fans and blowers, agitators, pipe threads in the chemical industry and wherever high temperatures and aggressive media are present.

ART.-NO.

ARTICLE

PACKAGE

30681

Molymagus PYR TT

1TU-245 / PAT-400VD / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

## STRUB Planto Grease EP

Synthetic, biodegradable universal grease



### DESCRIPTION

STRUB Planto Grease is a light-colored grease with very good adhesion. The composition of this modern grease is based on the latest developments in our research in the field of biodegradable products.

### APPLICATION

STRUB Planto Grease is a synthetic, biodegradable grease. It is suitable for all types of bearings. It is used at low, normal and high temperatures.

ART.-NO.

ARTICLE

PACKAGE

30603

Planto Grease EP

1TU-245 / PAT-400VD / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

## STRUB Gearbox fluid grease 1740 EP 00

Fluid grease with EP additives

### DESCRIPTION

High-quality fluid grease with pronounced high-pressure properties (contains EP additives), thus high lubricity. Good flexing stability and thus only very slight change in consistency. Good corrosion protection and high oxidation stability (aging resistance). Miscible and compatible with all other branded greases of the comparable type.

### APPLICATION

Lubrication of grease-lubricated gears, wherever a fluid grease of NLGI class 00 is prescribed. For gear motors (such as BAUER gear motors) and with correspondingly good sealing for roller, ball and needle bearings. Very suitable for central lubrication systems Vogel, Delimont, Bielomatik etc. Temperature application range: - 25 to 100°C.

ART.-NO.

ARTICLE

PACKAGE

30663

Gearbox fluid grease 1740 EP 00

1TU-245 / PAT-400VD / PAT-SHUT / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S



## STRUB Gearbox fluid grease 1743 EP 000

Semi-synthetic fluid grease with EP additives

### DESCRIPTION

High-quality lithium complex fluid grease with pronounced high pressure absorption properties. Good flexing stability and thus only very slight change in consistency. Excellent corrosion protection and oxidation stability (aging resistant).

### APPLICATION

For various CNC machines (central lubrication systems), where a flow grease of class NLGI 000 is prescribed.

ART.-NO.	ARTICLE	PACKAGE
33148	Gearbox fluid grease 1743 EP 000	1TU-245 / PAT-400VD / PAT-SHUT / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

## STRUB Universal grease

High-quality lithium soap grease for plain and roller bearings

### DESCRIPTION

STRUB Universalfett 1901 EP 1 and STRUB Universalfett 1900 EP 2 are high-quality lithium soap greases for sliding and rolling bearings. They are easy to convey and have good adhesive properties with a long shelf life. Miscible and compatible with all other branded greases of the comparable type.

### APPLICATION

Specially formulated for the lubrication of plain and roller bearings in industry, transportation, agriculture and commercial applications.

ART.-NO.	ARTICLE	PACKAGE
33676	Universal grease 1901 EP 1	1TU-245 / PAT-400VD / PAT-SHUT / PAT-400ST / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S
30664	Universal grease 1900 EP 2	1TU-245 / PAT-400VD / PAT-SHUT / PAT-400ST / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S
30143	Universal grease 1899 EP 0	1TU-245 / PAT-400VD / PAT-SHUT / PAT-400ST / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S
33761	Universal grease 1899 EP 0 / MoC	1TU-245 / PAT-400VD / PAT-SHUT / PAT-400ST / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

# STRUB Universal Grease 1910 EP 2

Synthetic Ability, Special Grease

## DESCRIPTION

STRUB Universalfett 1910 EP 2 is a universal grease based on the latest findings. It corresponds to a very wide range of applications in mechanical engineering, vehicle construction and all areas of maintenance. It is suitable for all ball bearings with up to 8'000 rpm and more tours. The product also has very good fulling resistance, wide temperature application limits and good pumpability. The grease ensures longer relubrication intervals in many cases.

## APPLICATION

STRUB Universal Grease 1910 EP 2 is suitable for a wide range of applications in the industrial, construction and transport sectors, on machine tools, etc. Especially for lubrication points which are exposed to weather influences as well as shock, impact and pressure loads. Also for machine wet parts and in humid environments. Examples of use: Heavy vehicles, construction machinery, forklifts, tractors, cranes, presses, mining hammers and industrial machinery. Highly loaded plain and roller bearings, slewing rings, chains, gears, joints, spindles, leaf springs, semi-truck trailers, splined shafts and many others.

ART.-NO.

ARTICLE

PACKAGE

30701

Universal Grease 1910 EP 2

1TU-245 / PAT-400VD / PAT-SHUT / PAT-400ST / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

# STRUB Universal Grease 1958 EP 2

Synthetic grease for automotive and defense industry

## DESCRIPTION

STRUB Universal Grease 1958 EP 2 is a lithium saponified grease, with special selected additives and synthetic oils. This composition gives the product very good mechanical stability and resistance to hydrocarbons. It is easy to handle even at low temperatures and retains its excellent properties. STRUB Universal Grease 1958 EP 2 is oxidation resistant, water insoluble, has good low temperature properties and much better lubricating properties than greases containing mineral oils. Does not attack synthetic and natural-based rubber seals, as well as synthetic brake fluids.

## APPLICATION

STRUB Universal Grease 1958 EP 2 is a special lubricant for the automotive and defense industries, where low operating temperatures (- 40°C) prevail and the lubricant must be hydrocarbon resistant. The product is suitable for lubrication of steel and bronze workpieces such as gears and worm wheels, bolts,mscrews, joints, bearings with plastic components, etc.m Do not mix with greases containing mineral oil. Not suitable for the lubrication of aluminum parts.

ART.-NO.

ARTICLE

PACKAGE

31354

Universal Grease 1958 EP 2

1TU-245 / PAT-400VD / PAT-SHUT / PAT-400ST / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

## STRUB Universal Grease 1958 EP 2 PTFE

Synthetic grease for automotive and defense industry

### DESCRIPTION

STRUB Universal Grease 1958 EP 2 PTFE is a lithium saponified grease with special selected additives and synthetic oils as well as solid lubricant for emergency running properties. This composition gives the product very good mechanical stability and resistance to hydrocarbons. It is easy to handle even at low temperatures and retains its excellent properties. STRUB Universal Grease 1958 EP 2 is oxidation resistant, water insoluble, has good low temperature properties and much better lubricating properties than greases containing mineral oil. Does not attack synthetic and natural-based rubber seals, as well as synthetic brake fluids.

### APPLICATION

STRUB Universal Grease 1958 EP 2 is a special lubricant for the automotive and defense industries, where low operating temperatures (- 40°C) prevail and the lubricant must be hydrocarbon resistant. The product is suitable for lubrication of steel and bronze workpieces such as gears and worm wheels, bolts, screws, joints, bearings with plastic components, etc. Do not mix with greases containing mineral oil. Not suitable for the lubrication of aluminum parts. Solid lubricant for emergency running properties.

ART.-NO.

ARTICLE

PACKAGE

33450 Universal Grease 1958 EP 2 PTFE 1TU-245 / PAT-400VD / PAT-SHUT / PAT-400ST / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

## STRUB Universal Grease 1910 EP MoS2

Synthetic AbilitySpecial grease with molybdenum disulfide (MoS2 )

### DESCRIPTION

STRUB Universal Grease 1910 EP MoS2 is a universal grease designed according to the latest findings. It corresponds to a very wide range of applications in industry. The product also has very good flexing resistance, very strong adhesion, wide temperature application limits and good pumpability. In many cases, the grease ensures longer relubrication intervals and has good emergency running properties.

### APPLICATION

STRUB Universal Grease 1910 EP MoS2 is suitable for a wide range of applications in industry. In particular for lubrication points which are exposed to weather influences as well as impact, shock and pressure loads. Application examples: Highly loaded plain and roller bearings, slewing rings, chains, gears, joints, spindles and many others.

ART.-NO.

ARTICLE

PACKAGE

31684 Universal Grease 1910 EP MoS2 1TU-245 / PAT-400VD / PAT-SHUT / PAT-400ST / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

## STRUB Universal Long-Life Grease 1950 EP 2

Synthetic Ability Special Grease

### DESCRIPTION

STRUB Universal Long-Life Grease 1950 EP 2 is a light-colored, exceptionally well adhering (adhesive) and water-resistant grease. It also has very good flexing resistance, wide temperature application limits and good pumpability. The grease ensures longer relubrication intervals in many cases.

### APPLICATION

Versatile use in industry, construction and transport. Especially for lubrication points which are exposed to weather influences as well as impact, shock and pressure loads. Also for machine wet parts and in humid environments. Examples of use: Heavy vehicles, construction machinery, forklifts, tractors, cranes, presses, mining hammers and industrial machinery. Highly loaded plain and roller bearings, slewing rings, chains, gears, joints, spindles, leaf springs, semitrailer trailers, splined shafts and many others.

ART.-NO.

ARTICLE

PACKAGE

30665 Univ. Long-Life Grease 1950 EP 2 1TU-245 / PAT-400VD / PAT-SHUT / PAT-400ST / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

## STRUB Universal long-life grease 1950 MoS2

Synthetic Ability Special Grease

### DESCRIPTION

MoS<sub>2</sub> -containing, exceptionally well adhering (adhesive) and water-resistant grease. STRUB Universal Long-Life Grease 1950 MoS<sub>2</sub> also has very good flexing resistance, wide temperature application limits and good pumpability. The grease ensures longer relubrication intervals in many cases.

### APPLICATION

Versatile use in industry, construction and transport. Especially for lubrication points which are exposed to weather influences as well as impact, shock and pressure loads. Also for machine wet parts and in humid environments. Examples of use: Heavy vehicles, construction machinery, forklifts, tractors, cranes, presses, mining hammers and industrial machinery. Highly loaded plain and roller bearings, slewing rings, chains, gearboxes, joints, spindles, leaf springs, semitrailer trailers, splined shafts and many others.

ART.-NO.

ARTICLE

PACKAGE

30469 Univ. long-life grease 1950 MoS<sub>2</sub> PAT-400VD / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

# STRUB Universal Long-Life Grease 1950 PTFE

Synthetic Ability Special Grease with PTFE

## DESCRIPTION

Light colored, exceptionally well adhering (adhesive) and water resistant grease with PTFE. STRUB Universal Longlife Grease 1950 PTFE also has very good flexing resistance, wide temperature application limits and good pumpability. The grease ensures longer relubrication intervals in many cases.

## APPLICATION

Versatile use in industry, construction and transport. Especially for lubrication points which are exposed to weather influences as well as impact, shock and pressure loads. Also for machine wet parts and in humid environments. Examples of use: Heavy vehicles, construction machinery, forklifts, tractors, cranes, presses, mining hammers and industrial machinery. Highly loaded plain and roller bearings, slewing rings, chains, gears, joints, spindles, leaf springs, semi-truck trailers, splined shafts and many others.

ART.-NO.

ARTICLE

PACKAGE

31648

Univ. Long-Life Grease 1950 PTFE 1TU-245 / PAT-400VD / PAT-SHUT / PAT-400ST / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

# STRUB Universal Grease 1910 PTFE

Synthetic Ability Special grease with Teflon

## DESCRIPTION

STRUB Universal Grease 1910 PTFE is a universal grease designed according to the latest findings. It corresponds to a very wide range of applications in industry. The product also has very good fulling resistance, very strong adhesion, wide temperature application limits and good pumpability. The grease ensures longer relubrication intervals in many cases.

## APPLICATION

STRUB Universal Grease 1910 PTFE can be used in a wide range of industrial applications. Especially for lubrication points which are exposed to weather influences as well as shock, impact and pressure loads. Also for machine wet areas and in humid environments. Application examples: Highly loaded plain and roller bearings, slewing rings, chains, gears, joints, spindles and many others

ART.-NO.

ARTICLE

PACKAGE

31631

Univalfett 1910 PTFE

1TU-245 / PAT-400VD / PAT-SHUT / PAT-400ST / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

# STRUB Universal Grease LX 220

Lithium complex grease

## DESCRIPTION

STRUB Universal Grease LX 220 is a mineral oil based lithium complex soap grease for high temperature applications. It reduces relubrication intervals up to 80% compared to conventional lithium soap greases.

## APPLICATION

General lubrication points, as well as in wheel bearings of heavy vehicles, construction machinery, forklifts, tractors, cranes, etc. For mechanical elements operating at elevated temperatures. For general bearing lubrication, camshafts, guides and sliding surfaces where strong adhesion at high temperature is desired.

ART.-NO.	ARTICLE	PACKAGE
32520	Universal Grease LX 220	1TU-245 / PAT-400VD / PAT-SHUT / PAT-400ST / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

# STRUB Multi Duty Grease EP 1, 2 + 3

Greases without drop point

## DESCRIPTION

STRUB Multi Duty Grease EP are infusible greases (without drop point). Careful manufacturing and the addition of high-quality additives result in greases with universal character.

## APPLICATION

Due to the high temperature application range, it can still be used as a universal grease where lithium soap greases fail the service. Fields of application: Construction, garages, cement industry, mills, foundries, chemical industry, textile and machinery industry, transport industry, agriculture, etc.

ART.-NO.	ARTICLE	PACKAGE
32033	Multi Duty EP 1	1TU-245 / PAT-400VD / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S
30666	Multi Duty EP 2	1TU-245 / PAT-400VD / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S
30677	Multi Duty EP 3	1TU-245 / PAT-400VD / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

## STRUB Multi Duty Grease PAO 2-3

Synthetic grease without dropping point

### DESCRIPTION

STRUB Multi Duty Grease PAO is a synthetic and infusible grease (without drop point). Careful production and addition of high quality additives make it a high quality, universal grease.

### APPLICATION

Its high service temperature allows frictionless lubrication where greases with a lithium soap have no power. Fields of application: Construction, garages, cement industry, mills, foundries, chemical industry, textile and metallurgical industry, transportation, agriculture, etc.

ART.-NO.	ARTICLE	PACKAGE
33152	Multi Duty Grease PAO 2	1TU-245 / PAT-400VD / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S
33280	Multi Duty Grease PAO 3	1TU-245 / PAT-400VD / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

## STRUB Multi Duty Grease PAO 2 PTFE

Synthetic grease without dripping point

### DESCRIPTION

STRUB Multi Duty Grease PAO PTFE is based on high quality synthetic base oils with PTFE solid lubricant, which brings emergency running properties. STRUB Multi Duty Grease PAO PTFE is designed for high continuous operating temperatures and has no dropping point.

### APPLICATION

Its high service temperature enables smooth lubrication where soap-based greases reach their performance limits. Typical applications are construction, garages, cement industry, mills, foundries, chemical industry, textile and metallurgical industry, transport, agriculture, etc.

ART.-NO.	ARTICLE	PACKAGE
33257	Multi Duty Grease PAO 2 PTFE	1TU-245 / PAT-400VD / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

## STRUB HT PU 550 Synth

Synthetic bearing grease for low and high temperatures  
Free from heavy metals

### DESCRIPTION

STRUB HT PU 550 Synth is a polyurethane grease, with specially selected EP additives and synthetic oils. These properties guarantee a long service life even at high temperatures for extended periods. Even at low temperatures (-40°C) it is easy to process or pump and retains its excellent properties. STRUB HT PU 550 Synth is highly resistant to oxidation, insoluble in water and has much better high-pressure lubricating properties than greases containing mineral oil. Furthermore, it has excellent shear stability and acts as a corrosion inhibitor even in the presence of water.

### APPLICATION

STRUB HT PU 550 Synth is a synthetic lubricant for all branches of industry where low to very high operating temperatures (-40°C to +180°C) prevail. Especially for the lubrication of ball, roller, plain and needle bearings made of various materials with high speeds, long service intervals and high pressure. STRUB HT PU 550 Synth is also ideally suited for bearing lubrication of electric motors, fans, generators conveyor systems, etc.

ART.-NO.	ARTICLE	PACKAGE
31583	HT PU 550 Synth	BKE-5, BKE-25, KDO-500WE, KDO-1000WE, KKE-12Je

## STRUB HT PU 680

Water resistant high temperature grease

### DESCRIPTION

STRUB HT PU 680 is a high-temperature lubricating grease with synergistically acting EP additives. It has excellent pressure absorption capacity and very good resistance to water under static or dynamic loads. Additional features are: Very good adhesion, very good corrosion protection, high oxidation stability, high aging resistance, increased pressure resistance < 350 bar, good sealing effect, resistance to aggressive media.

### APPLICATION

In metallurgical iron rolling mills for high-temperature lubrication via central systems of

- Track roller bearings in continuous casting plants (slabs and billets, calibration segment roller bearings)
- Conveyor systems in continuous furnaces
- Annealing and drying furnaces
- Hot rolling mills of cardboard box factories
- Tar machines in road construction
- upper operating temperature with consumption lubrication up to +200°C (short-term up to +250°C)

ART.-NO.	ARTICLE	PACKAGE
30668	HT PU 680	1TU-245 / PAT-400VD / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S



## STRUB Vaselingrease Pharma

DAB Snow white

### DESCRIPTION

White, easy to spread, odorless grease. Complies with DAB FDA-NSF H1 quality.

### APPLICATION

Vaselingrease Pharma is used as a base material for pharmaceutical preparations, cosmetics and plasticizers for the plastics industry and also as a lubricant in the food or pharmaceutical industry.

ART.-NO.	ARTICLE	PACKAGE
30827	Vaselingrease Pharma	BKE-5, BKE-25, KDO-500WE, KDO-1000WE,KKE-12Jet

## STRUB Vaseline Technical

Technical petrolatum

### DESCRIPTION

Light yellow, easily spreadable, almost odorless fat

### APPLICATION

Vaseline Technical is used for lubrication of various parts.

ART.-NO.	ARTICLE	PACKAGE
31816	Vaseline Technical	BKE-5, BKE-25, KDO-500WE, KDO-1000WE,KKE-12Jet

## STRUB Bell chain grease NLGI 0-1

NLGI class 0-1 fluid grease

### DESCRIPTION

STRUB Bell Chain Grease is a high quality special bell chain grease that provides excellent lubrication and does not drip. Remains sufficiently supple even at low temperatures to ensure a reliable sliding effect.

### APPLICATION

STRUB Bell Chain Grease gives every bell that certain something and ensures a pure, bright sound as well as a smoothly gliding chain pull.

ART.-NO.	ARTICLE	PACKAGE
33241	Bell chain grease NLGI 0-1	BKE-5, BKE-25, KDO-500WE, KDO-1000WE,KKE-12Jet

## STRUB Synthetic Grease CSK

Synthetic Calcium Sulfonate Complex Grease

### DESCRIPTION

STRUB Synthetic Grease CSK 80 is a synthetic multi-purpose, high-pressure and low-temperature grease for industry. STRUB Synthetic Grease CSK 80 B additionally contains a solid lubricant for emergency running properties and improved lubrication.

### APPLICATION

For general lubrication points in industry. Mechanical elements that operate at very low and/or high temperatures.

ART.-NO.	ARTICLE	PACKAGE
32679	Synthetic Grease CSK 80	BKE-5, BKE-25, KDO-500WE, KDO-1000WE,KKE-12Jet
33344	Synthetic Grease CSK 80 B	BKE-5, BKE-25, KDO-500WE, KDO-1000WE,KKE-12Jet

# STRUB Food Grease AL LT H1

High quality aluminum complex grease for the food industry

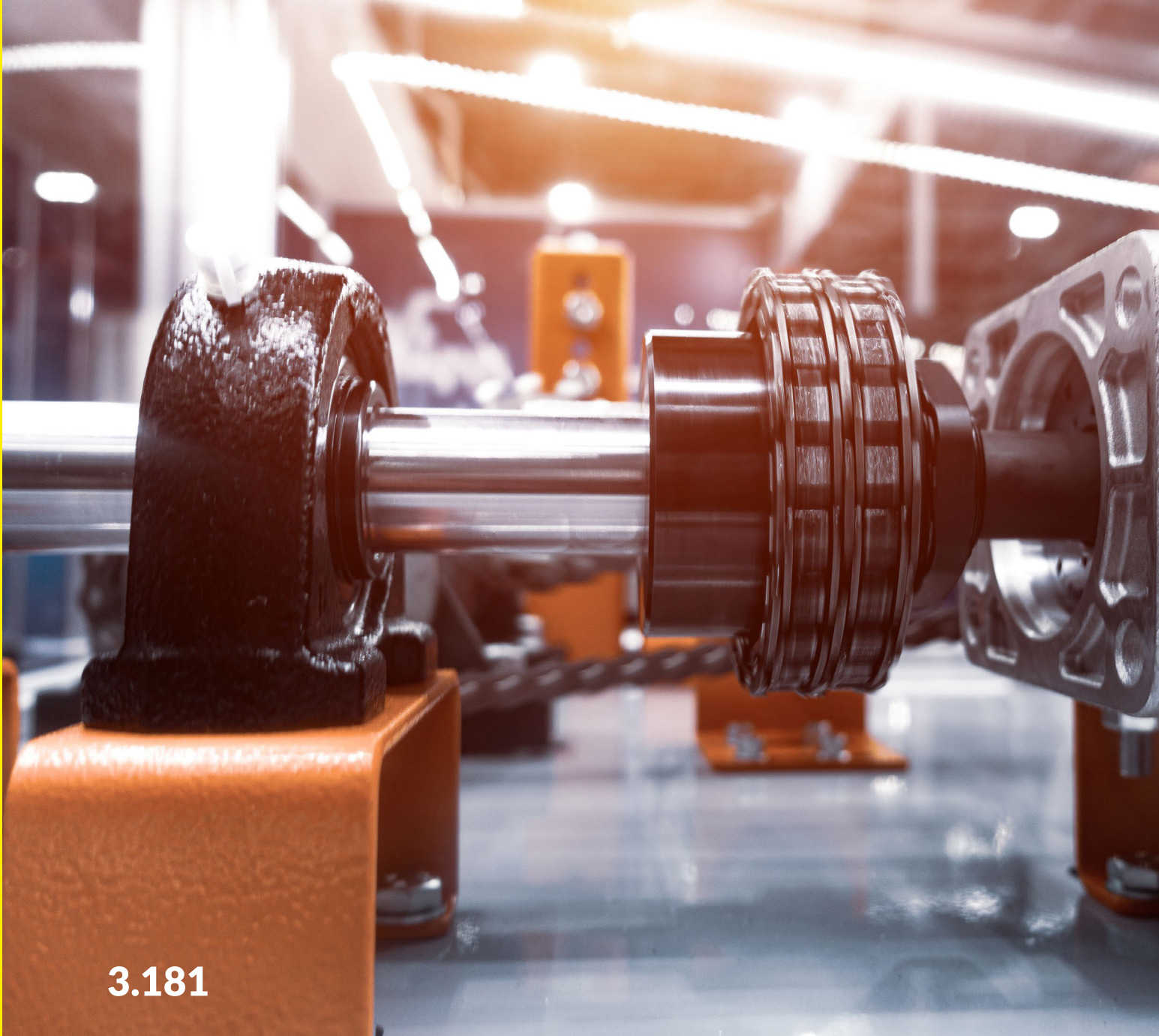
## DESCRIPTION

STRUB Food Grease AL LT H1 is a fully synthetic aluminum complex soap grease for the food and pharmaceutical industry. STRUB Food Grease AL LT H1 convinces by excellent lubricity with maximum shear stability even for ball bearings with high rotational speed in the temperature range from -40°C to +150°C. Furthermore, it has good water resistance with very good adhesion and high pressure absorption properties. The products comply with the specifications of the NSF (H1) guidelines. STRUB Food Grease AL LT is approved for use where possible food contact may occur. Manufactured to the highest quality standards in facilities where HACCP has been implemented and forms an integral part of the ISO 9001 and ISO 21469 quality and hygiene management systems. In addition, the products comply with the strict guidelines according to Kosher and Halal. Typical applications are rolling and plain bearings, joints, levers, bolts, rails, lifting cylinders, cams, etc.

## APPLICATION

Clean and degrease parts or lubrication points thoroughly before use. Observe the bearing manufacturer's instructions. Due to the variety of possible applications, we always recommend performing appropriate tests before general use.

ART.-NO.	ARTICLE	PACKAGE
33455	Food Grease AL LT 1 H1	PAT-400VD / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S
33448	Food Grease AL LT 2 H1	PAT-400VD / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S



3.181

## SPECIAL GREASES

STRUB special greases are high-performance products for special applications.

STRUB Special grease BA-S-2	69
STRUB Special grease BA 2-3	69

## STRUB Special grease BA-S-2

High-speed heavy-duty grease

### DESCRIPTION

STRUB Special Grease BA-S consists of a special blend of synthetic bases thickened with barium complex soap and additives to improve oxidation, corrosion, wear and load bearing resistance.

### APPLICATION

STRUB Special Grease BA-S is specially designed for the lubrication of bearings and other mechanical components operating under high speeds, high loads and adverse environmental conditions. Some examples of applications are: High speed spindle bearings in textile, machine tool and woodworking machines, threaded spindles, small gears, etc.

ART.-NO.

ARTICLE

PACKAGE

33565

Special grease BA-S-2

PAT-400VD / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S

## STRUB Special grease BA 2-3

Barium complex grease

### DESCRIPTION

STRUB Special Grease BA consists of a special blend of mineral oils thickened with barium complex soap and additives to improve oxidation, corrosion, wear and load bearing resistance.

### APPLICATION

STRUB Special Grease BA is specially designed for the lubrication of bearings and other mechanical components operating under high speeds, high loads and adverse environmental conditions. Some examples of applications are: Mines, ships and ports, textile, steel, cement, automotive or the paper industry.

ART.-NO.


ARTICLE

PACKAGE

33566

Special grease BA 2-3

PAT-400VD / KDO500-WE / KDO1000-WE / BKE-5 / BKE 25 / FF/B / FT/S



**3.190**

## PASTE

Whether extreme operating temperatures, adverse weather conditions, high loads at slow speeds or aggressive media; STRUB pastes have been developed for all kinds of extreme requirements. You will also find

assembly and service pastes, for example against fretting corrosion or to maintain the smooth running of screw connections, in our extensive range of pastes.

STRUB FS 912 E2 Stone coating agent	71	STRUB Paste S	75
Spezial Compound Baumann V2	71	STRUB Paste HT B Donhad	76
STRUB Chiselpaste EP NLGI 3	72	STRUB Paste ABS	76
STRUB ceramic paste white NLGI 2	72	STRUB Paste THC-Ca-W	77
STRUB THC-T-W High Pressure Paste	73	STRUB Spezial Gear Fluid C-000	77
STRUB Paste HTP 1, HTP 2	73	STRUB Molymagus bonded coating S-58HN	78
STRUB Graphite Paste SPG 40	74	STRUB Molymagus NL-3 NLGI 2	78
STRUB Scaffold grease bright	74	STRUB Molymagus NL-4 C	79
STRUB Open Gear 99	75	STRUB Molymagus Paste U	79
STRUB Paste AKS 2000 Chrome 40	75		

# STRUB FS 912 E2 Stone coating agent

High temperature lubricant for the steel and refractory industry

## DESCRIPTION

STRUB FS 912 E2 stone coating agent is a self-drying dispersion based on an aqueous carrier with special graphite, thickeners and synergistic active ingredients. It is used as a release agent, lubricant, slip agent and sealant. The product is shear stable, has very good wetting properties and can also be used on hot slide plates.

## APPLICATION

STRUB FS 912 E2 stone coating agent is used in the high-temperature range as a separating agent between the ceramic cold/hot slide gate components. It is applied by brush, spatula, dipping, spraying or with a rag. The lubricating product has a thixotropic consistency and is thinned slightly by vigorous agitation.

ART.-NO.

ARTICLE

PACKAGE

30072

FS 912 E2 Stone coating agent

KKE-12JET / KDO-500WE / KDO-1000WE

# Spezial Compound Baumann V2

Synthetic mirror spring lubricant

## DESCRIPTION

Special Compound Baumann V2 is a specially developed grease for the brake bushings of wrap springs for vehicle exterior mirrors. The product is applied for torque safety, in case of clutch overload, e.g. mirror stop, slipping clutches between plastic carrier and steel spring. Its absolutely unrivalled adhesive properties, synergistically acting solid lubricants and the synthetic carrier material are responsible for the hydroelastic sliding film anchoring itself into the metal surface (polar effect), smoothing itself and thus no longer being able to break away.

## APPLICATION

Special Compound Baumann V2 is filled sufficiently thick into the bushings and bearings. After pressure is applied to the grease, the structural behavior changes and a braking effect takes effect. Special Compound Baumann V2 is water-resistant and not sensitive to strong temperature fluctuations or environmental influences.

ART.-NO.

ARTICLE

PACKAGE

30262

Compound Baumann V2

KKE-12JET / KDO-500WE / KDO-1000WE

## STRUB Chiselpaste EP NLGI 3

High pressure lubricating paste

### DESCRIPTION

Very well adhering, still spreadable paste with synthetic carrier oils and adhesive additives. Prevents seizing of all metal pairings. Acts against vibration corrosion and fretting corrosion as well as noise inhibiting and shock absorbing. STRUB Chiselpaste EP NLGI 3 has good resistance to environmental influences such as water, weak alkalis and acids. The product is compatible with all commercially available oil-resistant sealing materials. It is also successfully used in wet and dusty areas.

### APPLICATION

High tech universal lubricating paste with novel, synergistically acting solid lubricants. Used as a separating, lubricating and assembly paste in the field of construction machinery (chisel paste), industry, the automotive industry, plant engineering, petrochemicals, tramways, iron and steelworks and the cement industry.

ART.-NO.

ARTICLE

PACKAGE

30268

Chiselpaste EP NLGI 3

PAT-400VD / PAT-SHUT

## STRUB ceramic paste white NLGI 2

High-Tech, High temperature anti seize paste

### DESCRIPTION

White high temperature paste with synergistic solid lubricant combination. The selected lubricant components prevent tribocorrosion and produce an excellent release effect up to 1400°C.

### APPLICATION

Against fretting corrosion and seizure of cylinders, brake and steering linkages, set screws, springs, bolts, brake cylinders, fuel nozzles, exhaust fittings, spark plug threads, wheel bolts, etc. for the automotive sector, machine and steel industry, shipping, aviation. The ceramic paste is also successfully used in aqueous environment as a separating paste for man-hole covers, bolts, gate valves, hydrants, etc. STRUB ceramic paste is an excellent service and assembly paste for mounting bushings, fitting and press fits, gears, shafts. It prevents subsequent corrosion and seizing of all metal connections. STRUB ceramic paste does not attack seals, sleeves, plastics.

ART.-NO.

ARTICLE

PACKAGE

30449

ceramic paste white NLGI 2

KDO-500WE / KDO-1000WE / KE-30 / FF/B / FF/T



# STRUB THC-T-W High Pressure Paste

Universal assembly and anti-seize paste

## DESCRIPTION

Bright, user-friendly multi-purpose lubricating paste with novel solid lubricants in synergistic combination.

## APPLICATION

Excellent for virtually all assembly work in all industries:

- for easy mounting of fit and press fits
- for basic lubrication of bed ways, guides and joints
- for easy loosening of flange and screw connections
- to prevent run-in damage to plain bearings and liners
- for lubrication of pneumatic tools

Dry cleaned surfaces or bodies and apply using a lint-free cloth, brush or paintbrush.

ART.-NO.	ARTICLE	PACKAGE
30458	THC-T-W High Pressure Paste	PAT-400N / PAT-400VD / PIDO-250ST / KDO-500WE / KDO-1000WE / BKE-5 / BKE-25 / FT/S / FF/B

# STRUB Paste HTP 1, HTP 2

Universal solid lubricant paste

## DESCRIPTION

Well adhering and spreadable paste. Based on lubricating oils, esters with special adhesive additives and good corrosion protection properties. STRUB Paste HTP has very good resistance to water, alkalis, acids, etc. and is compatible with all sealing materials. Thus, it can also be used in wet and dusty operations.

## APPLICATION

Solid lubricant paste of the most modern type. Use as a separating, lubricating and assembly paste in the field of tramways, industry and plant construction, automotive industry, iron and steel industry, for ladle gate valves, cement industry for rings on rotary kilns and for all maintenance in all industrial plants.

ART.-NO.	ARTICLE	PACKAGE
31714	Paste HTP 1	PIN-MI / BKE-5 / BKE-25 / FF/B / FT/S / KDO-500WE / KDO-1000WE
30459	Paste HTP 2	PAT-400N / PAT-400VD / PIDO-250ST / KDO-500WE / KDO-1000WE / BKE-5 / BKE-25 / FT/S / FF/B

## STRUB Graphite Paste SPG 40

Lubricating paste with very high graphite content

### DESCRIPTION

STRUB Graphite Paste SPG 40 is a paste with a very high content of graphite, built up on an infusible grease (without dripping point)

### APPLICATION

STRUB Graphite Paste SPG 40 is used as a lubricating, separating and sealing paste or as an assembly paste for flange connections to keep gaskets and the flange itself in good condition. Fields of application: Construction industry, cement industry, mills, foundries, separating lubrication of ejectors for Aluminum die casting, chemical industry, textile and machinery industry, agriculture, etc.

ART.-NO.

ARTICLE

PACKAGE

30461

Graphite Paste SPG 40

KKE-12JET / KDO-500WE / KDO-1000WE / FT/S / FF/B

## STRUB Scaffold grease bright

Modern high-tech assembly grease

### DESCRIPTION

STRUB Scaffold Grease bright is a universal grease with a high proportion of synergistically acting solid lubricants. Protects aluminum and zinc alloys against corrosion of any kind and prevents seizure under high static loads thanks to excellent EP properties. Makes screw connections easier to loosen and keeps threaded spindles, joints, bolts, sliding guides smooth-running. The very good adhesion and water resistance allows economical application and targeted use. STRUB Scaffold Grease bright is weather resistant and clean in application.

### APPLICATION

Dry cleaned surfaces or bodies and apply using a lint-free cloth, brush or paintbrush.

ART.-NO.

ARTICLE

PACKAGE

30566

Scaffold grease bright

KKE-12JET / KDO-500WE / KDO-1000WE / FT/S / FF/B

## STRUB Open Gear 99

Special adhesive grease for ropes

### DESCRIPTION

STRUB Open Gear 99 is an excellent adhesive, high-quality lubricant based on the latest technology. It contains a combination of synergistically acting solid lubricants for extreme application conditions such as interfacial friction. STRUB Open Gear 99 is enriched with EP (extreme pressure) additives, which form a hydroelastic lubricating film that anchors itself to the metal surface and thus counteracts wear, abrasion and pitting. The product has very good resistance to water, seawater and salt water.

### APPLICATION

STRUB Open Gear 99 can be applied with a brush, spatula or automatic spray systems.

ART.-NO.

ARTICLE

PACKAGE

30706

Open Gear 99

BKE-5 / BKE-25 / FF/B / FT/S / KDO-500WE / KDO-1000WE

## STRUB Paste AKS 2000 Chrome 40

Universal antifreeze paste

### DESCRIPTION

STRUB Paste AKS 2000 Chrome 40 is a paste with good adhesion and spreadability. Based on synergistic lubricating oils, with special adhesive additives and good corrosion protection properties. STRUB Paste AKS 2000 Chrom 40 has very good resistance to water, alkalis, acids, etc. and is compatible with all sealing materials designed for mineral oil and esters. STRUB Paste AKS 2000 Chrom 40 can also be used advantageously in wet and dusty operations.

### APPLICATION

Solid lubricant paste of the most modern type. Use as a separating, lubricating and assembly paste in the field of tramways, industry and plant construction, automotive industry, iron and steel industry, as well as for all maintenance in all industrial plants.

ART.-NO.

ARTICLE

PACKAGE

30011

Paste AKS 2000 Chrome 40

KKE-12JET / KDO-500WE / KDO-1000WE / FT/S / FF/B

## STRUB Paste S

Universal assembly paste

### DESCRIPTION

Universal paste with a very high content of synergistically acting solid lubricants.

### APPLICATION

Dry cleaned surfaces or bodies and apply using a lint-free cloth, brush or paintbrush.

ART.-NO.

ARTICLE

PACKAGE

30455

Paste S

BKE-5 / BKE-25 / FF/B / FT/S / KDO-500WE / KDO-1000WE

## STRUB Paste HT B Donhad

High temperature resistant lubricating paste

### DESCRIPTION

STRUB HT B Donhad Paste an assembly paste of the most modern type mixed with solid lubricant. STRUB HT B Donhad Paste is based on lubricating oils, esters with special additives, adhesive additive and good corrosion protection and demolding properties.

### APPLICATION

STRUB HT B Donhad Paste is for separating, lubricating and assembling and is used in the following fields: Industry and construction, engine industry, iron and steel industry, rotating fittings, cement industry for the rings on the drum furnaces and for all maintenance in all industrial plants.

ART.-NO.

ARTICLE

PACKAGE

33043

Paste HT B Donhad

PAT-400N / PAT-400VD / PIDO-250ST / KDO-500WE / KDO-1000WE / BKE-5/ BKE-25 / FT/S / FF/B

## STRUB Paste ABS

Hot water resistant seal protection lubricant paste

### DESCRIPTION

STRUB Paste ABS is a solid lubricant paste (black) with exceptionally good adhesion and very good water resistance. Also resistant to hot water. The paste also adheres to wet surfaces. STRUB Paste ABS is very compatible with the sealing materials usually required in hydraulic systems.

### APPLICATION

STRUB Paste ABS is used as a sealing paste for seals on rotating elements. It absorbs high pressure differences. (Recommended also for cylindrical roller bearings on (Danieli) roll stands in the steel industry, where there is an open space of 2/10 mm between the roll and the inner ring, and the paste is used for sealing and lubrication. Since the paste is black, this does not mean that the ring must be replaced).

ART.-NO.

ARTICLE

PACKAGE

31608

Paste ABS

BKE-5 / BKE-25 / FF/B / FT/S / KDO-500WE / KDO-1000WE

## STRUB Paste THC-Ca-W

Universal assembly and anti-seize paste

### DESCRIPTION

Light yellow, user-friendly multi-purpose lubricating paste with novel solid lubricants in synergistic combination. STRUB Paste THC-Ca-W is also water-resistant, adhesive and easy to spread.

### APPLICATION

Dry cleaned parts and apply product with lint-free cloth, brush or paintbrush.

ART.-NO.	ARTICLE	PACKAGE
31940	Paste THC-Ca-W	PAT-400VD / KKE-12JET / KDO-500WE / KDO-1000WE / FT/S / FF/B

## STRUB Spezial Gear Fluid C-000

Flow grease for open gears and racks

### DESCRIPTION

STRUB Special Gear Fluid C-000 is a fluid grease for open gears and racks.

### APPLICATION

STRUB Gear Fluid C-000 forms an insoluble and extremely strong and dry adherent lubricating film on the metal surface, even with small dosages. Even under extreme conditions, this film remains resistant to pressure and heat loads over a long period of time, thus guaranteeing constant lubrication. Specially selected solid lubricant components enable the use of a fine separating film between the friction parts for crane runways and wheels as well as other lubrication points.

ART.-NO.	ARTICLE	PACKAGE
32497	Spezial Gear Fluid C-000	FF7B

# STRUB Molymagus bonded coating S-58HN

Hot water resistant sealant lubricant paste

## APPLICATION

Molymagus Reaction Acid S-58-A and Molymagus Bonded Coatings S-58-HN can be used to treat all non-acid resistant ferrous metals as well as sintered and cast hard metals (Stellite and Widio) and various heat-treatable steels. The Molymagus Reaction Acid S-58-A or Molymagus Bonded Coatings S-58-HN process provides a thin, runin top coat comparable to a phosphate coating. The dry lubricant molybdenum disulfide and special reaction inhibitors are incorporated in this layer. Molymagus Reaction Acid S-58-A and Molymagus Bonded Coatings S-58-HN treated surfaces show better running-in behavior and reduce friction.

## APPLICATION

The surfaces to be treated must be free of scale, grease and oil. Thorough cleaning of the surfaces and subsequent degreasing with solvents or grease-dissolving cleaning agents are absolutely necessary.

ART.-NO.	ARTICLE	PACKAGE
30813	Molymagus bonded coating S-58HN	RDWB-1000

# STRUB Molymagus NL-3 NLGI 2

High performance grease with high MoS2 content

## DESCRIPTION

STRUB Molymagus NL-3 NLGI 2 has a high content of MoS2, therefore very good emergency running properties. High flexing stability and therefore only very slight change in consistency. Distinct high pressure and wear reducing properties (contains EP additives). Very good corrosion protection and high oxidation stability. (Aging resistance) The grease is not soluble in water. Temperature resistance is very good up to 120°C continuous temperature. Remains supple in cold conditions. STRUB Molymagus NL-3 NLGI 2 has good pumpability and good adhesive properties with long shelf life. Miscible and compatible with all other branded greases of comparable type

## APPLICATION

Especially for heavily loaded sliding points, e.g. on construction machinery, rock crushers, hoists, excavators, etc. STRUB Molymagus NL-3 NLGI 2 enables simplification of lubrication service and extends lubrication intervals.

ART.-NO.	ARTICLE	PACKAGE
30452	Molymagus NL-3 NLGI 2	PIN-MI / PAT-400VD / BKE-5 / BKE-25 / KDO-1000WE

# STRUB Molymagus NL-4 C

Grease with excellent emergency running properties



## DESCRIPTION

STRUB Molymagus NL-4 C is a biodegradable grease for applications where black greases have been used until now. Special synergistically acting white solid lubricants give this grease good pressure absorption properties as well as excellent emergency running properties.

## APPLICATION

Especially for heavily loaded sliding points, spiders on construction machinery, rock crushers, hoists, dredgers, docks, etc

ART.-NO.	ARTICLE	PACKAGE
30453	Molymagus NL-4 C	BKE-5 / BKE-25 / FF/B / FT/S / KDO-500WE / KDO-1000WE

# STRUB Molymagus Paste U

Lubricating paste with high content of MoS<sub>2</sub>

## DESCRIPTION

STRUB Molymagus Paste U is a high-quality, extremely economical lubricating paste with universal application possibilities: Instead of having to hold 5, 10 or more lubricating pastes in the past, along with the risk of using the wrong paste here or there for a special job, you can now solve a wide variety of lubrication problems with a single paste.

## APPLICATION

Clean sliding surfaces, guides, etc. and degrease if possible. Then apply the paste very sparingly with a leather cloth, hard brush or brush. A very thin film already provides absolute protection and best sliding properties. For screw connections of all kinds, the paste is applied very sparingly to the threads with a brush.

ART.-NO.	ARTICLE	PACKAGE
30852	Molymagus Paste U	TU-50 / KKE-12Jet / KDO-500WE / KDO-1000WE



3.200

## SILICONE GREASE

The advantages of silicone oils paired with the application possibilities of greases and pastes. Due to their excellent polymer compatibility and water resistance, STRUB silicone greases are ideally suited

for the lubrication of elastomers and rubber parts or for the assembly and lubrication of fittings and water pipes. Resistant to low temperatures.

STRUB Silicone grease

81



# STRUB Silicone grease

Soft greasy silicone compound



## DESCRIPTION

STRUB silicone greases 5040, 5050, 5060 are soft, grease-like silicone compounds with excellent temperature resistance. The products are NSF (H1) registered and certified by NSF according to ISO 21469 and approved for use where possible food contact may occur. Manufactured to the highest quality standards in facilities where HACCP has been implemented and forms an integral part of the ISO 9001 and ISO 21469 quality and hygiene management systems. In addition, the products are certified according to the strict guidelines in accordance with Kosher and Halal.

## APPLICATION

Sealant for seals in cold and hot water for ball valves, one-hand mixers, piston cartouches, mixer taps, swivel spout, shower head ceramic installations, temperature controllers, thermocouples, thermostats, thermovalves, press fit seals, water hydraulics, radial shaft seals.

ART.-NO.	ARTICLE	PACKAGE
30456	Silicone grease 5040	PAT-400VD / KDO-1000WE / BKE 5 / BKE 25 / 200
30457	Silicone grease 5050	PAT-400VD / KDO-1000WE / BKE 5 / BKE 25 / 200
31505	Silicone grease 5060	PAT-400VD / KDO-1000WE / BKE 5 / BKE 25 / 200



## COOLING LUBRICANTS

The water-miscible metalworking fluids from STRUB offer the best machining results due to maximum cooling capacity, above-average performance and optimally adjusted foaming behaviour. Can be used for machining all materials. The finely tuned composition of

the STRUB Stabillo series enables maximum service life with low consumption and is therefore the first choice for customers with high performance requirements and easy handling of the emulsion / solution.

STRUB Stabillo Grind 11 EP	84	STRUB Stabillo Cut 2 EP SW	87
STRUB Stabillo Grind 15	84	STRUB Stabillo Cut 005	88
STRUB Stabillo Slide 50 Co	85	STRUB Stabillo Cut Challenge	88
STRUB Stabillo Cool TM 1 / SW	85	STRUB Stabillo Cut Extreme	89
STRUB Stabillo Cut AF EP SW	86	STRUB Stabillo Cut Extreme EP	89
STRUB Stabillo Cut 1 SW	86	STRUB Stabillo Cut Extreme EP SW	90
STRUB Stabillo Cut 2 EP	87	STRUB Stabillo Cut Extreme O	90



STRUB Stabillo Cut YM SF	91	STRUB Stabillo Cut FRT-Multi	94
STRUB Stabillo Cut YM PF	91	STRUB Stabillo Cut Heavy Duty V3	94
STRUB Stabillo Cut ALB SW	91	STRUB Stabillo Cut FRT-Synt 4.1	95
STRUB Stabillo Cut FRT AI-ES	92		
STRUB Stabillo Cut FRT-B	92		
STRUB Stabillo Cut FRT-Glass	93		
STRUB Stabillo Cut FRT AI-ES PLUS	93		

## STRUB Stabillo Grind 11 EP

Biostatic, fully synthetic abrasive concentrate

### DESCRIPTION

Biostatic, i.e. bacteria-resistant, water-soluble high-performance abrasive concentrate. STRUB Stabillo Grind 11 EP is skin-friendly, is not subject to toxic legislation and is neutral in odor

### APPLICATION

Universally applicable for all grinding operations such as flat, round, centerless, disc grinding, etc. on cast iron, steel and their alloys. STRUB Stabillo Grind 11 EP is ideally suited for cyclone separators, belt filters, etc. Excellent for magnetic alloys such as NdFeB (neodymium iron boron alloys). STRUB Stabillo Grind 11 EP contains additional EP additives (extreme pressure) to perform easy to medium machining operations on steel and cast iron. Preferably, the STRUB Stabillo Grind 11 EP should only be used with distilled water.

### FACTOR REFRACTOMETER READING 3.1

ART.-NO.

ARTICLE

PACKAGE

30285

Stabillo Grind 11 EP

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Grind 15

Biostatic, fully synthetic water-miscible cooling lubricant

### DESCRIPTION

Universally applicable for all grinding operations such as flat, round and disc grinding on cast iron, steel and their alloys. STRUB Stabillo Grind 15 is ideally suited for cyclone separators, belt filters, etc. **Excellent for magnetic alloys such as NdFeB (neodymium-iron-boron alloys) including plastic machining.**

### APPLICATION

Biostatic, i.e. bacteria-resistant, fully synthetic high-performance abrasive concentrate. STRUB Stabillo Grind 15 is free from substances hazardous to health such as nitrite, chlorine, secondary amines. This also ensures good skin compatibility. A specific selection of raw materials results in good corrosion protection, bacterial stability, no sticking and no foam. This ensures an economical application.

### FACTOR REFRACTOMETER READING 3.3

ART.-NO.

ARTICLE

PACKAGE

30758

Stabillo Grind 15

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Slide 50 Co

Biostatic, fully synthetic, water-miscible carbide abrasive

### DESCRIPTION

Due to targeted raw material selection, no cobalt is dissolved from the carbide by STRUB Stabillo Slide 50 Co. In addition, the solutions show excellent biostatic stability. Thus, the service life of the metalworking fluid is significantly increased. Due to extremely good foaming behavior, STRUB Stabillo Slide 50 Co is also suitable when turbo separators or cyclones are used to maintain the grinding solution. STRUB Stabillo Slide 50 Co has very good corrosion protection in the application concentration and does not tend to stick due to its excellent re-solubility. Free from secondary amines, formaldehyde or formaldehyde releasers, nitrite, nitrite releasers, PCB, PCT, PTBB.

### APPLICATION

STRUB Stabillo Slide 50 Co is a fully synthetic product specially developed for carbide grinding. All typical grinding operations (external, internal, disc grinding, tool sharpening, etc.), where excellent chip conveyance is important in addition to cooling, are performed with this product.

### FACTOR REFRACTOMETER READING 1.4

ART.-NO.	ARTICLE	PACKAGE
31995	Stabillo Slide 50 Co	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Cool TM 1 / SW

Biobalanced, water-miscible cooling lubricant for tube manufacturing, grinding (incl. disc grinding), Metalworking

### DESCRIPTION

Water-miscible cooling lubricant of the latest generation for all tube manufacturing operations. By using a specially developed biobalanced system, this cooling lubricant works without any added bactericides.

### APPLICATION

STRUB Stabillo Cool TM 1 / SW is a universal product for all cold pipe forming operations with cold rolled steel, hot rolled steel and high alloy steel. The product is also suitable for metal cutting operations such as grinding, drilling, turning and milling.

### FACTOR REFRACTOMETER READING 0.9

ART.-NO.	ARTICLE	PACKAGE
30903	Stabillo Cool TM 1 / SW	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Cut AF EP SW

High-tech biobalanced, water-miscible, amine- and bactericide-free cooling lubricant for high-performance machining and grinding operations, Soft water (SW)

### DESCRIPTION

Water-miscible, amine-free cooling lubricant from the latest product line of Strub Swiss Tribology. Suitable for all machining operations, especially with high demands on the lubricating and cooling properties of the cooling lubricant. By using a specially developed biobalanced system, this cooling lubricant works without any added bactericides.

### APPLICATION

STRUB Stabillo Cut AF EP SW is a universal product for all metal cutting operations such as grinding, tapping, drilling, turning and milling. STRUB Stabillo Cut AF EP SW is suitable for all metals such as steel, chromium, manganese and high alloy steels as well as for the aluminum 6000-7000 series.

**FACTOR REFRACTOMETER READING 0.9**

ART.-NO.	ARTICLE	PACKAGE
33207	Stabillo Cut AF EP SW	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Cut 1 SW

High-tech biobalanced cooling lubricant

### DESCRIPTION

Universal, water-miscible cooling lubricant of the latest generation. Suitable for all machining operations. Due to the use of a special formulation, a selective, balanced biosystem is formed during use. This protects the emulsion from a negative, microbiological influence (bacterial attack, Monday morning odor).

### APPLICATION

Universally applicable for all machining operations such as milling, turning, drilling, etc. in all materials.

**FACTOR REFRACTOMETER READING 0.9**

ART.-NO.	ARTICLE	PACKAGE
30271	Stabillo Cut 1 SW	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Cut 2 EP

Biobalanced Ultra High Performance Multifunctional cooling lubricant for soft water

### DESCRIPTION

STRUB Stabillo Cut 2 EP is a biobalanced, highly additivated cooling lubricant with excellent EP (extreme pressure) properties. Due to the biobalanced concept, a balanced, natural bio-flora is formed, which results in an almost unlimited lifetime of the coolant. This means that the use of highly hazardous bactericides in the fight against microorganisms can be dispensed with. STRUB Stabillo Cut 2 EP is free of secondary amines or their derivatives, nitrite releasers, PBC, PCT, PTBB, and heavy metals. (Complies with TRGS 611).

### APPLICATION

For all machining operations and in particular: Threading, reaming (Mapal), punching, drawing for all materials as well as aluminum, stainless steel, highest alloyed and hardened steels including non-ferrous metals.

**FAKTOR REFRAKTOMETER READING 0.9**

ART.-NO.

ARTICLE

PACKAGE

30030

Stabillo Cut 2 EP

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Cut 2 EP SW

Biobalanced Ultra High Performance Multifunctional cooling lubricant for soft water

### DESCRIPTION

STRUB Stabillo Cut 2 EP SW is a biobalanced, highly additivated cooling lubricant with excellent EP (extreme pressure) properties. Due to the biobalanced concept, a balanced, natural bio-flora is formed, which results in an almost unlimited lifetime of the coolant. This means that the use of highly hazardous bactericides in the fight against microorganisms can be dispensed with. STRUB Stabillo Cut 2 EP is free of secondary amines or their derivatives, nitrite releasers, PBC, PCT, PTBB, and heavy metals. (Complies with TRGS 611).

### APPLICATION

For all machining operations and in particular: Threading, reaming (Mapal), punching, drawing for all materials as well as aluminum, stainless steel, highest alloyed and hardened steels including non-ferrous metals.

**FAKTOR REFRAKTOMETERABLESEWERT 0.9**

ART.-NO.

ARTICLE

PACKAGE

31334

Stabillo Cut 2 EP SW

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Cut 005

Biostatic cooling lubricant

### DESCRIPTION

Biostatic, i.e. bacteria-resistant, water-soluble high-performance cooling lubricant. STRUB Stabillo Cut 005 is skin-friendly and neutral in odor. It is mineral oil based, with synergistic lubricating active additives. Free of secondary amines, formaldehyde or formaldehyde releasers, nitrite, nitrite releasers, PCB, PCT, PTBB, etc.

### APPLICATION

Universally applicable for all machining operations such as milling, turning, drilling, etc. in all materials, including non-ferrous metals, as well as for the production of tubes and profiles with longitudinal seam welding.

**FACTOR REFRACTOMETER READING 1.6**

ART.-NO.

ARTICLE

PACKAGE

30164

Stabillo Cut 005

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Cut Challenge

Universal Performance semi-synthetic, biostatic cooling lubricant

### DESCRIPTION

Water-soluble cooling lubricant with very universal character. In addition to low consumption (re-dosing), STRUB Stabillo Cut Challenge is biostatic, i.e. good microorganism resistance against bacteria and fungi. STRUB Stabillo Cut Challenge does not stick, has a high rinse-clean effect and can also be re-emulsified with water. The product is free of secondary amines, secondary amine splitter, nitrite, nitrite splitter, organic chlorine compounds, PCB, PCT, PTBB, etc. and complies with TRGS 611.

### APPLICATION

Universal use such as milling, turning, drilling and sawing on cast iron, various steels and aluminum 6000 and 7000 series. (No staining). Copper corrosion test 40°C 3 hrs. 1b (pass)

**FACTOR REFRACTOMETER READING 2.0**

ART.-NO.

ARTICLE

PACKAGE

31358

Stabillo Cut Challenge

5l / 10l / 20l / 60l / 200l / 1000l



## STRUB Stabillo Cut Extreme

Universal Performance Biostatic, semi-synthetic cooling lubricant

### DESCRIPTION

Water-soluble cooling lubricant with a very universal character. In addition to low consumption (re-dosing), STRUB Stabillo Cut Extreme is biostatic, i.e. a good microorganism resistance against bacteria and fungi. STRUB Stabillo Cut Extreme does not stick, has a high rinse-clean effect and can also be re-emulsified with water. STRUB Stabillo Cut Extreme is free of secondary amines, secondary amine releasers, formaldehyde or formaldehyde releasers, nitrite, nitrite releasers, organic chlorine compounds, PCB, PCT, PTBB, etc. and complies with TRGS 611.

### APPLICATION

Universal use such as milling, turning, drilling and sawing on cast iron, various steels and aluminum 6000 and 7000 series. (No staining).

### FACTOR REFRACTOMETER READING 1.6

ART.-NO.

ARTICLE

PACKAGE

31446

Stabillo Cut Extreme

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Cut Extreme EP

Universal, biostatic, high-pressure cooling lubricant

### DESCRIPTION

Water emulsifiable EP cooling lubricant with universal character. Excellent flushing-cleaning effect (clean machines). Thanks to the fine emulsion droplet size, consumption (drag-out losses due to chips, parts and tools) is massively reduced. In addition to the low post-dosing, STRUB Stabillo Cut Extreme EP is biostatic, i.e., very good resistance to bacteria and fungi. Free of secondary amines, secondary amine splitter, formaldehyde or formaldehyde splitter nitrite, nitrite splitter, PCB, PCT, PTBB, etc. and complies with TRGS 611.

### APPLICATION

Universal use such as milling, turning, drilling and sawing on cast iron, various steels and aluminum 6000 and 7000 series. (No staining)

### FACTOR REFRACTOMETER READING 1.3

ART.-NO.

ARTICLE

PACKAGE

31634

Stabillo Cut Extreme EP

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Cut Extreme EP SW

Universal, biostatic, high-pressure cooling lubricant

### DESCRIPTION

STRUB Stabillo Cut Extreme EP SW is an extreme pressure metalworking fluid. Excellent rinsing-cleaning effect (clean machines) as well as a very good foaming behavior even with soft water, show the strength of this cooling lubricant. Thanks to the fine droplet size, consumption (drag-out losses due to chips, parts and tools) is massively reduced. In addition to the low post-dosing, STRUB Stabillo Cut Extreme EP SW is biostatic, i.e., very good resistance to bacteria and fungi. Free of secondary amines, formaldehyde or formaldehyde releasers, nitrite, nitrite releasers, PCB, PCT, PTBB, etc. and complies with TRGS 611.

### APPLICATION

Universal use such as milling, turning, drilling, tapping and sawing on cast iron, various steels and aluminum 6000 and 7000 series. (No staining). Copper corrosion test 40°C 3h 1b (pass)

### FACTOR REFRACTOMETER READING 1.2

ART.-NO.

ARTICLE

PACKAGE

31735

Stabillo Cut Extreme EP SW

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Cut Extreme O

Universal, biostatic high-tech cooling lubricant

### DESCRIPTION

Water-emulsifiable, mineral oil-based, bacteria-resistant cooling lubricant with very universal character. STRUB Stabillo Cut Extreme O does not stick and, thanks to the small emulsion droplet size, has a high rinsing-cleaning power with excellent dripping capacity. The product has a very low consumption, even in cast machining (lower post-dosing ~ 1 % to be able to keep the concentration) and is therefore very economical.

### APPLICATION

Universeller Einsatz wie Fräsen, Drehen, Bohren, Gewindeschneiden und Sägen auf Guss, diversen Stählen und Alu 6000- und 7000-Serie. (Keine Fleckenbildung). Kupferkorrosionstest 40°C 3Std. 1b (pass)

### FACTOR REFRACTOMETER READING 1.2

ART.-NO.

ARTICLE

PACKAGE

31936

Stabillo Cut Extreme O

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Cut YM SF

Organic water-miscible cooling lubricant from renewable raw materials

### DESCRIPTION

Ester-based, easy-care cooling lubricant with good rust protection properties, low-foaming, skin-friendly. Free from sodium nitrite, chlorine, PCB, PCT, PTBB and heavy metals.

### APPLICATION

Universal cooling lubricant for the entire range of metalworking, the product is used wherever very good lubricating effect is required. Suitable for drilling, sawing, turning, milling and thread cutting in all common metals as well as plastics. Especially suitable also for glass grinding. Do not mix with other cooling lubricants.

**FACTOR REFRACTOMETER READING 1.0**

ART.-NO.

ARTICLE

PACKAGE

30163

Stabillo Cut YM PF

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Cut YM PF

Biostable, water-miscible cooling lubricant especially suitable for non-ferrous metal machining (free from phosphor)

### DESCRIPTION

Water-miscible, phosphorus-free cooling lubricant from our latest product line. Especially suitable for the area of non-ferrous metals and copper alloys, but also for aluminum, steel, cast iron to chrome steel.

### APPLICATION

STRUB Stabillo Cut YM PF is a universal product for all machining operations such as grinding, drilling, turning, milling, sawing, reaming and threading.

**FACTOR REFRACTOMETER READING 1.3**

ART.-NO.

ARTICLE

PACKAGE

31957

Stabillo Cut YM PF

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Cut ALB SW

Biostatic, universal high-tech metalworking coolant

### DESCRIPTION

Water emulsifiable, chlorine-free cooling lubricant for all machining operations. STRUB Stabillo Cut ALB SW contains a specially developed anti-foam package and is therefore ideal for use in soft water where foam problems could occur. The product has an excellent price-performance ratio.

### APPLICATION

STRUB Stabillo Cut ALB SW is a universal cooling lubricant for machining, such as milling, turning, drilling, sawing, broaching, grinding in aluminum alloys, titanium, low and high alloy steels, tool steel, non-ferrous metals in soft and hard water.

**FACTOR REFRACTOMETER READING 1.0**

ART.-NR.

ARTIKEL

GEBINDE

32093

Stabillo Cut ALB SW

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Cut FRT AI-ES

Semi-synthetic cooling lubricant

### DESCRIPTION

Industry 4.0 is on everyone's lips and digitalization is in full swing. This calls for a digital lubricant, with future-oriented function as a design element. The new series of Strub Stabillo Cut is based on Future Resistant Technology (FRT). The novel technology characterizes this latest generation water-miscible cutting lubricant for tremendous performance. STRUB Stabillo Cut FRT AI-ES proves to have above-average stability and guarantees optimum cooling and lubricating effect due to its excellent wettability. Low-foaming behavior, excellent corrosion protection for workpiece, tool and machine round off the excellent properties of STRUB Stabillo Cut FRT AI-ES.

### APPLICATION

Specially recommended for light to heavy machining and grinding operations. The product is suitable for machining aluminum, copper as well as cast iron, steel and their alloys.

### FACTOR REFRACTOMETER READING 1.0

ART.-NO.

ARTICLE

PACKAGE

33128

Stabillo Cut FRT AI-ES

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Cut FRT-B

Semi-synthetic cooling lubricant

### DESCRIPTION

Industry 4.0 is on everyone's lips and digitalization is in full swing. This calls for a digital lubricant, with future-oriented function as a design element. The new series of Strub Stabillo Cut is based on Future Resistant Technology (FRT). The novel technology characterizes this latest generation water-miscible cutting lubricant for tremendous performance. STRUB Stabillo Cut FRT -B proves to have above-average stability and guarantees optimum cooling and lubricating effect due to its excellent wettability. Low-foaming behavior, excellent corrosion protection for workpiece, tool and machine round off the excellent properties of STRUB Stabillo Cut FRT -B.

### APPLICATION

Specially recommended for light to heavy machining and grinding operations. The product is suitable for cast iron, steel and their alloys.

### FACTOR REFRACTOMETER READING 1.1

ART.-NO.

ARTICLE

PACKAGE

33129

Stabillo Cut FRT-B

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Cut FRT-Glass

Cooling lubricant for glass processing

### DESCRIPTION

Industry 4.0 is on everyone's lips and digitalization is in full swing. This calls for a digital lubricant, with future-oriented function as a design element. The new series of Strub Stabillo Cut is based on Future Resistant Technology (FRT). The novel technology characterizes this latest generation water-miscible cutting lubricant for tremendous performance. STRUB Stabillo Cut FRT-Glass proves to have above-average stability and guarantees optimum cooling and lubricating effect due to its excellent wettability. Low foaming behavior, excellent corrosion protection for tool and machine round off the excellent properties. In glass processing, these properties lead to an improvement in quality at the edges, increase productivity and reduce production and maintenance costs.

### DESCRIPTION

In glass processing, coolants must meet special requirements and are irreplaceable in the grinding process with diamond tools. Cooling with water or a standard cooling lubricant are not sufficient to meet today's productivity and quality requirements. STRUB Stabillo Cut FRT-Glass can perfectly meet the high quality requirements of the temperature sensitive glass due to the specially selected additives. Typical applications of STRUB Stabillo Cut FRT-Glass are the processing of: Borosilicate and quartz glasses, Ceran and Zerodur, optical glasses, TV screens and automotive mirrors. STRUB Stabillo Cut FRT-Glass has the required properties that optimize the grinding result and increase the efficiency of the processing.

**FACTOR REFRACTOMETER READING 1.5**

ART.-NO.

ARTICLE

PACKAGE

33307

Stabillo Cut FRT-Glass

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Stabillo Cut FRT AI-ES PLUS

Semi-synthetic cooling lubricant

### DESCRIPTION

Industry 4.0 is on everyone's lips and digitalization is in full swing. This calls for a digital lubricant, with future-oriented function as a design element. The new series of Strub Stabillo Cut is based on Future Resistant Technology (FRT). The novel technology characterizes this modern water-miscible cutting lubricant of the latest generation for tremendous performance. STRUB Stabillo Cut FRT AI-ES PLUS proves to have above-average stability and guarantees optimum cooling and lubricating effect due to its excellent wettability. Low-foaming behavior, excellent corrosion protection for workpiece, tool and machine round off the excellent properties of STRUB Stabillo Cut FRT AI-ES PLUS.

### APPLICATION

Recommended for light to heavy machining as well as for grinding operations. The product is specially designed for machining aluminum, as well as suitable for copper, cast iron, steel and their alloys.

**FACTOR REFRACTOMETER READING 1.0**

ART.-NO

ARTICLE

PACKAGE

33331

Stabillo Cut FRT AI-ES PLUS

5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Stabillo Cut FRT-Multi

Semi-synthetic cooling lubricant

## DESCRIPTION

Industry 4.0 is on everyone's lips and digitalization is in full swing. This calls for a digital lubricant, with future-oriented function as a design element. The new series of Strub Stabillo Cut is based on Future Resistant Technology (FRT). The novel technology characterizes this latest generation water-miscible cutting lubricant for tremendous performance. STRUB Stabillo Cut FRT-Multi proves to have above-average stability and guarantees optimum cooling and lubricating effect due to its excellent wettability. Low-foaming behavior, excellent corrosion protection for workpiece, tool and machine round off the excellent properties of STRUB Stabillo Cut FRT-Multi.

## APPLICATION

Specially recommended for light to heavy machining and grinding operations. The product is suitable for multifunctional machining, such as aluminum, cast iron, steel and its alloys, titanium, brass, bronze, duplex, superduplex, Inconel, Hastelloy and many other alloys.

## FACTOR REFRACTOMETER READING 1.0

ART.-NO.

ARTICLE

PACKAGE

33616

Stabillo Cut FRT-Multi

5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Stabillo Cut Heavy Duty V3

Biostable high-tech cutting and grinding coolant for difficult to most extreme machining

## DESCRIPTION

STRUB Stabillo Cut Heavy Duty is a biostable, highly additivated, water-dilutable cooling lubricant for highest performance requirements. STRUB Stabillo Cut Heavy Duty is free of secondary amines (TRGS 611), nitrite-formaldehyde releasers, PBC, PCT, PTBB, and heavy metals.

## APPLICATION

For all machining and difficult grinding operations (alloys with interstage structure) where maximum lubrication performance without chlorine is required. Threading, reaming (Mapal), punching, grinding, drawing, turning, milling, sawing, deep hole drilling in stainless steel, highest alloyed and hardened steels (e.g. Bainit heat treatment).

## FACTOR REFRACTOMETER READING 0.9

ART.-NO.

ARTICLE

PACKAGE

33390

Stabillo Cut Heavy Duty V3

5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Stabillo Cut FRT-Synt 4.1

Synthetic cooling lubricant

## DESCRIPTION

Industry 4.0 is on everyone's lips and digitalization is in full swing. This calls for a digital lubricant, with future-oriented function as a design element. The new series of Strub Stabillo Cut is based on Future Resistant Technology (FRT). The novel technology distinguishes this modern water-miscible cutting lubricant of the latest generation for enormous performance. STRUB Stabillo Cut FRT-Synt 4.1 is a synthetic, low-foaming, watermiscible cooling lubricant, which is characterized by the selection of synergistically acting additives. Due to the high bacterial resistance, which results in an above-average lifetime of the cooling lubricant, additional addition of biocides in the fight against microorganisms can be dispensed with. STRUB Stabillo Cut FRT-Synt 4.1 is free of boric acid, formaldehyde and -deposits.

## APPLICATION

Recommended for light to heavy machining and can be used especially for flat, cylindrical, centreless and disc grinding. Suitable for a wide range of materials: aluminium, cast iron, steel, chrome steel and titanium. STRUB Stabillo Cut FRT- Synt 4.1 can only be used with demineralized water.

## FACTOR REFRACTOMETER READING 1.5

ART.-NO.	ARTICLE	PACKAGE
33751	Stabillo Cut FRT-Synt 4.1	5l / 10l / 20l / 60l / 200l / 1000l



**3.510**

## Suspending agent

Even though water-miscible cooling lubricants from STRUB are known for their easy handling and durability, these products also need to be maintained. After all, unwanted downtimes or premature replacement of the cooling lubricant due to infestation with bacteria

and fungi or the growth of biofilms cause costs and reduce the quality of the machining results. Here, STRUB's suspending agent, which are finely tuned to the cooling lubricants, help you to prolong trouble-free operation to a maximum.

STRUB Conditioner CC 100	97	Acticide MBR 1	99
STRUB pH-Raiser	97	Fungitrol L20 DPG	99
STRUB AF pH-Raiser	97	Troyshield SC1	99
STRUB Non-ferrous metal inhibitor No. 6	98		
STRUB Stabilize Emulsifier O	98		
STRUB Inhibitor AL	98		



## STRUB Conditioner CC 100

pH-Correction agent for biostatic coolant lubricants

### DESCRIPTION

STRUB Conditioner CC 100 is an adjusting agent to increase the pH value in water-miscible cooling systems.

### APPLICATION

Everywhere where the pH value has fallen below the specified limit

ART.-NO.

ARTICLE

PACKAGE

30551

Conditioner CC 100

1l / 5l / 10l / 20l

## STRUB pH-Raiser

For amine-containing, water-miscible cooling lubricants

### DESCRIPTION

STRUB pH- Raiser is an additive/adjustment agent for the adjustment of the pH- value for the MWF types Biobalanced and Biostabile.

### APPLICATION

STRUB pH- Raiser is added to alkaline water miscible coolants to raise and stabilize the pH- value. In a cooling water circuit, the pH value can drop due to various inputs and as a result corrosion, instability of the emulsion, performance problems and finally microbial infestation can occur. Caution Do not use with amine-free cooling lubricants. When dosing, it is mandatory to wear protective goggles and gloves.

ART.-NO.

ARTICLE

PACKAGE

31520

pH-Raiser

1l / 5l / 10l / 20l

## STRUB AF pH-Raiser

For amine-free, water-miscible cooling lubricants

### DESCRIPTION

STRUB AF pH- Raiser is an additive/adjusting agent for the adjustment of the pH- value for the KSS- types amine-free Biobalanced.

### APPLICATION

STRUB AF pH- Raiser is added to water miscible coolants to raise and stabilize the pH- value. In a cooling water circuit, the pH value can decrease due to various inputs and as a result, corrosion, instability of the emulsion, performance problems and finally microbial infestation can occur. When dosing, it is mandatory to wear protective goggles and gloves.

ART.-NO.

ARTICLE

PACKAGE

31351

AF pH-Raiser

1l / 5l / 10l / 20l

## STRUB Non-ferrous metal inhibitor No. 6

For all water-miscible cooling lubricants

### DESCRIPTION

STRUB Non-Ferrous Metal Inhibitor No. 6 is a highly active nonferrous metal inhibitor as an additive for all water-miscible cooling lubricants. It is effective for copper, copper alloys and other metals to prevent the characteristic tarnishing colors of brass alloys.

### APPLICATION

STRUB Non-ferrous Metal Inhibitor No. 6 is particularly suitable for the post-inhibition of aqueous cooling lubricant systems. The non-ferrous metal inhibitor is completely water-soluble, highly active and effective even at low concentrations. If a higher concentration of free copper ions is present, the addition of the non-ferrous metal inhibitor can lead to increased formation of so-called hydroxide slimes. It should therefore be noted that the filter system may be impaired for a short time.

ART.-NO.

ARTICLE

PACKAGE

31012

Non-ferrous metal inhibitor No. 6

11 / 5l / 10l / 20l

## STRUB Stabilize Emulsifier O

Emulsifier for biobalanced and biostatic cooling lubricants

### DESCRIPTION

STRUB Stabilize Emulsifier O is an adjusting agent to re-stabilize an emulsion.

### APPLICATION

Anywhere separation, oil separation are detected. Important that it is emulsion separation and not tramp oil. Add slowly with strong emulsion flow / flow rate.

ART.-NO.

ARTICLE

PACKAGE

31521

Stabilize Emulsifier O

11 / 5l / 10l / 20l

## STRUB Inhibitor AL

For all water-miscible cooling lubricants

### DESCRIPTION

STRUB Inhibitor AL can be used in all water-miscible cooling lubricants, as a highly active corrosion inhibitor to prevent the characteristic tarnish / staining on all aluminum and other metal alloys.

### APPLICATION

STRUB Inhibitor AL is particularly suitable for the post-inhibition of aqueous cooling lubricant systems. It is important to thoroughly mix the bath volume immediately after adding the inhibitor.

ART.-NO.

ARTICLE

PACKAGE

31523

Inhibitor AL

11 / 5l / 10l / 20l

## Acticide MBR 1

Technical preservative concentrate

### DESCRIPTION

Technical preservative concentrate for the container preservation of aqueous systems with excellent stability even in the alkaline range. ACTICIDE MBR 1 is free of formaldehyde and organohalogen compounds. In addition, ACTICIDE MBR 1 does not contain any VOC-relevant substances.

### APPLICATION

ACTICIDE MBR 1 is excellently suited for the storage preservation of aqueous products, such as Dispersion paints, polymer emulsions, adhesives, systems containing casein, bitumen emulsions, lignin sulphonates, pigment pastes, diesel fuel emulsions, slurries, coating compounds, glazes, putties, starch products, process waters, cleaning and care products, inks, printing pastes and conveying fluids etc.

ART.-NO.

ARTICLE

PACKAGE

32732

Acticide MBR 1

1l / 5l

## Fungitrol L20 DPG

against fungicides and yeast

### DESCRIPTION

Fungitrol L20 DPG is a highly effective fungicide, algicide and bactericide with a broad spectrum of activity.

### APPLICATION

It is used for infestation by fungi, moulds and yeast. Application concentration : 0.05% - 0.2%

ART.-NO.

ARTICLE

PACKAGE

33722

Fungitrol L20 DPG

1l / 5l

## Troyshield SC1

System cleaner

### DESCRIPTION

TROYSHIELD SC1 is a combination of highly active amphoteric wetting agents, emulsifiers and hexahydrotriazine. TROYSHIELD SC1 is highly effective against bacteria, moulds and yeasts and dissolves oily residues, dirt pockets, bacterial contamination and fungal patties.

### APPLICATION

TROYSHIELD SC1 is used for cleaning the entire circulation system of machine tools operated with water-mixed cooling lubricants. TROYSHIELD SC1 should be used before every change of cooling lubricant. The application concentration depends on the degree of contamination of the system and the age of the emulsion.

ART.-NO.

ARTICLE

PACKAGE

33698

Troyshield SC1

1l / 5l



3 520

## DEFOAMER COOLING LUBRICANTS

If, contrary to expectations, foam should form in your machine, use the defoamers from STRUB. We will

be happy to advise you on the right product for your cooling lubricant and application.

STRUB Antifoam 52	101
STRUB Antifoam 53	101
STRUB Antifoam 54	101
STRUB Additiv CA 25	102

## STRUB Antifoam 52

For mineral oil-based and semi-synthetic, water-miscible cooling lubricants

### DESCRIPTION

STRUB Antifoam No. 52 is a white, highly viscous defoamer specially adapted to Strub water-miscible cooling lubricants.

### APPLICATION

STRUB Antifoam No. 52 is used temporarily for foam peaks (e.g. caused by the introduction of cleaning agents, tramp oils, etc.) in mineral oil-based and semi-synthetic water-miscible cooling lubricants. Depending on the foam quantity, 0.01 % to a maximum of 0.02 % is usually added in relation to the emulsion quantity. STRUB Antifoam No. 52 is easily dispersible in the emulsion. It should nevertheless be added at points of high fluctuation (e.g. emulsion return or suction pump). In all standard emulsion maintenance equipment, STRUB Antifoam No. 52 is only filtered out in small masses. The product shows no undesirable properties in surface treatment.

ART.-NO.

ARTICLE

PACKAGE

32097

Antifoam 52

1l / 5l / 10l / 20l

## STRUB Antifoam 53

For all water-miscible cooling lubricants

### DESCRIPTION

STRUB Antifoam No. 53 is a whitish, low viscosity defoamer which is very easy to incorporate, for all watermiscible cooling lubricants.

### APPLICATION

STRUB Antifoam No. 53 is used temporarily for foam peaks (shaving foam e.g. caused by the application of cleaning agents). The product shows no undesirable properties in surface treatment.

ART.-NO.

ARTICLE

PACKAGE

32405

Antifoam 53

1l / 5l / 10l / 20l

## STRUB Antifoam 54

For all water-miscible cooling lubricants

### DESCRIPTION

STRUB Antifoam No. 54 is a whitish, highly viscous defoamer which is easy to incorporate, for all water-miscible cooling lubricants.

### APPLICATION

STRUB Antifoam No. 54 is used temporarily for foam peaks (shaving foam e.g. caused by the introduction of surfactants, air etc.). The product shows no undesirable properties in surface treatment.

ART.-NO.

ARTICLE

PACKAGE

32691

Antifoam 54

1l / 5l / 10l / 20l

# STRUB Additiv CA 25

Natural water softener

## DESCRIPTION

STRUB Additive CA 25 is a "liquid" natural lime, biodegradable and non-hazardous.

## APPLICATION

STRUB Additive CA 25 is used in water-miscible cooling emulsions where soft water can lead to foam. This is mostly the case in metalworking, CNC machines with internal cooling, where high, ultra-high pressure pumps are used.

ART.-NO.	ARTICLE	PACKAGE
30544	Additiv CA 25	1l / 5l / 10l / 20l

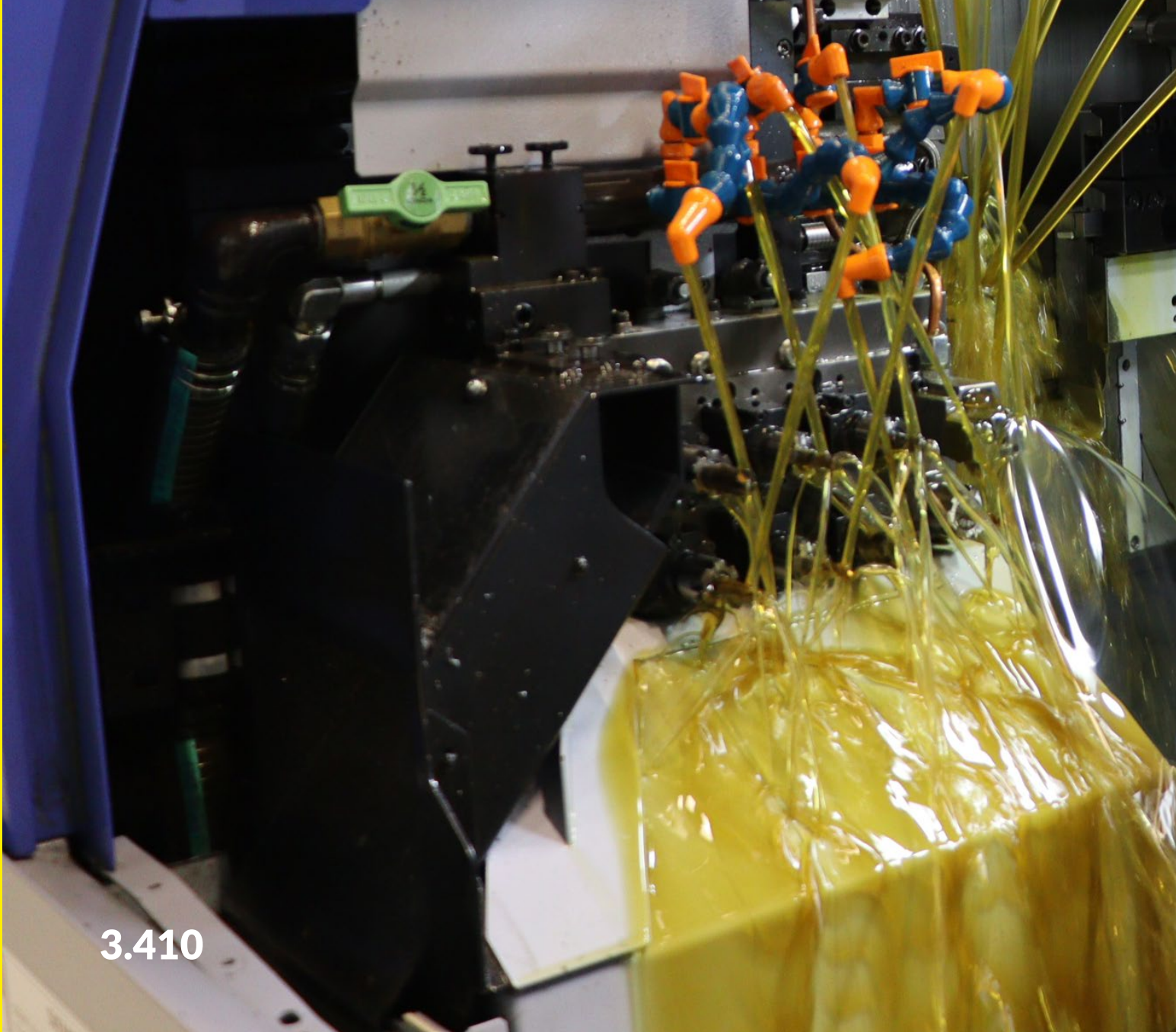
# Discover our new website

[www.strub-lube.ch](http://www.strub-lube.ch)



## Are you looking for the suitable product?

The STRUB knowledge database will show you the best choice. The Sales Team and our field staff are always available to answer your questions.



3.410

# CUTTING OILS

Whether in metalworking, plastics processing or mechanical engineering - our products prove their worth every day under tough conditions. Uncompromisingly and successfully, around the globe. Set us your

conditions, we optimise or realise them worldwide with our biostable, biostatic and biobalanced technology. Our own developed and proven additive packages increase the performance and its added value.





STRUB Vulcan Performance	106
STRUB Vulcan Futura	
CF 700/O, 300/O, 400/O, 800/O	107
STRUB Vulcan Futura CF 2900, 2915, 2922, 2932	107
STRUB Vulcan Futura CF GtL 10, 15, 22, 32	108
STRUB Vulcan Performance CSF 45	109
STRUB Vulcan Diamant 60/CL liquid	109

# STRUB Vulcan Performance

High performance all-round machining fluid based on renewable raw materials



## DESCRIPTION

The STRUB Vulcan Performance 5 - 68 product range is based on polar native raw materials produced in an environmentally friendly way. The matching high-tech additives are designed for the machining of high-alloy steels and aluminum. Of course, all other ferroalloys can also be machined. Non-ferrous metals should only be machined after consultation with our technical service. The decisive advantage of the STRUB Vulcan Performance 5 - 68 product range compared to mineral oil-based, highly additivated products is the significantly higher lubricity and load-carrying capacity (at the same viscosity). This is also the reason why they achieve comparatively excellent results in forming. Good skin compatibility compared to highly additive-based mineral products. STRUB Vulcan Performance 5 - 68 products also enable high dimensional stability, increased tool life and help to achieve excellent surface quality.

## APPLICATION

The STRUB Vulcan Performance 5 - 68 product range is the alternative to mineral oil based machining oils. The STRUB Vulcan Performance 5 - 68 product range is used in machining centers and accordingly covers practically all machining operations. The STRUB Vulcan Performance 5 - 68 products can also be used for forming.

ART.-NO.	ARTICLE	PACKAGE
30627	Vulcan Performance 10	5l / 10l / 20l / 60l / 200l
33439	Vulcan Performance 15	5l / 10l / 20l / 60l / 200l
30419	Vulcan Performance 22	5l / 10l / 20l / 60l / 200l
31922	Vulcan Performance 32	5l / 10l / 20l / 60l / 200l
30024	Vulcan Performance 42	5l / 10l / 20l / 60l / 200l

# STRUB Vulcan Futura CF 700/O, 300/O, 400/O, 800/O

High-performance cutting oils

## DESCRIPTION

Chlorine- and heavy metal-free high-performance cutting oils for difficult-to-machine materials.

## APPLICATION

STRUB Vulcan Futura CF O-series cutting oils are mainly used for "surgical alloys" (implants), Inox 18.8, chromemolybdenum and silicon steels, titanium, titanium alloys. Very demanding or most difficult cutting processes on the most modern CNC high-performance machines can be mastered in an exemplary manner.

ART.-NO.	ARTICLE	PACKAGE
30759	Vulcan Futura CF 300/O	5l / 10l / 20l / 60l / 200l
30732	Vulcan Futura CF 400/O	5l / 10l / 20l / 60l / 200l
30804	Vulcan Futura CF 700/O	5l / 10l / 20l / 60l / 200l
31390	Vulcan Futura CF 800/O	5l / 10l / 20l / 60l / 200l

# STRUB Vulcan Futura CF 2900, 2915, 2922, 2932

Heavy Duty, High-performance cutting oils

## DESCRIPTION

STRUB Vulcan Futura CF 2900, 2915, 2922, 2932 are chlorine and heavy metal free high performance cutting oils with the latest QPLC technology. The focus is on quality, performance, durability and cost/benefit.

## APPLICATION

STRUB Vulcan Futura CF 2900 cutting oils are successfully used for any operations but also threading, broaching, reaming of difficult-to-machine alloys such as chrome steel, "surgical steels" (implants), titanium, free-cutting steels, magnetic core irons, aluminum. It is also suitable for non-ferrous metals (copper corrosion test ASTM, D 130 / IP 154 1b).

ART.-NO.	ARTICLE	PACKAGE
30573	Vulcan Futura CF 2900	5l / 10l / 20l / 60l / 200l
31019	Vulcan Futura CF 2915	5l / 10l / 20l / 60l / 200l
30822	Vulcan Futura CF 2922	5l / 10l / 20l / 60l / 200l
31723	Vulcan Futura CF 2932	5l / 10l / 20l / 60l / 200l

# STRUB Vulcan Futura CF GtL 10, 15, 22, 32

New and innovative cutting oil series from STRUB based on Gas to Liquid (GtL) technology

## DESCRIPTION

The STRUB Vulcan Futura CF GtL 10 - 32 cutting oil series is based on the fully synthetic, highest purity base oils of Gas to Liquid (GtL) technology. GtL are synthesized from natural gas. Due to the high purity base and the synergistic additive combination, STRUB Vulcan Futura CF GtL 10 - 32 products are characterized by best performance. Low evaporation and a high flash point create a safe and pleasant workplace. STRUB Vulcan Futura CF GtL 10 - 32 are free of heavy metals, chlorine and zinc.

## APPLICATION

STRUB Vulcan Futura CF GtL 10 - 32 cutting oils are used for operations such as turning, milling, drilling up to thread forming and thread cutting are used for free cutting steel, aluminum, non-ferrous metals, difficult-to-machine chrome steels (implant steel) up to titanium alloys.

ART.-NO.	ARTICLE	PACKAGE
33434	Vulcan Futura CF GTL 10	5l / 10l / 20l / 60l / 200l
33436	Vulcan Futura CF GTL 15	5l / 10l / 20l / 60l / 200l
33437	Vulcan Futura CF GTL 22	5l / 10l / 20l / 60l / 200l
33438	Vulcan Futura CF GTL 32	5l / 10l / 20l / 60l / 200l

## STRUB Vulcan Performance CSF 45

High performance

All-round processing fluid based on renewable raw materials  
free from chlorine & sulfur



### DESCRIPTION

The STRUB Vulcan Performance product range is based on polar native raw materials that have been produced in an environmentally friendly manner. The suitable high-tech additives (without sulfur and chlorine) are designed for the machining of high-alloy steels and non-ferrous metals. Of course, all other ferroalloys can also be machined. Furthermore, the high flash points or evaporation points are responsible for the improved occupational safety (lower fire risk, less oil mist). Occupational safety and environmentally friendly products will become increasingly important in the future and are indispensable in modern factories. STRUB Vulcan Performance products also enable high dimensional accuracy, increased tool life and help to achieve excellent surface quality.

### APPLICATION

The STRUB Vulcan Performance product range is used in machining centers and accordingly covers virtually all machining operations. The STRUB Vulcan Performance products can also be used for forming. For aluminum and copper alloys in particular.

ART.-NO.

ARTICLE

PACKAGE

32288

Vulcan Performance CSF 45

1l / 5l / 10l / 20l

## STRUB Vulcan Diamant 60/CL liquid

High performance, Multipurpose lubricant

### DESCRIPTION

All-round lubricant for joints, bolts, chains, hinges, etc. The product also acts as an additive in lubricating oils to prevent galling/settling of metal couples

### APPLICATION

Cutting, sawing, threading, tapping, punching, bending, spinning, forming in steel and highest alloyed metals, including chrome steel. Metalworking, industrial maintenance, wood, paper, plastics, automotive, aircraft industries and shipyards. Almost unlimited lubricant use.

ART.-NO.

ARTICLE

PACKAGE

31344

Vulcan Diamant 60/ CL liquid

1l / 5l / 10l / 20l



3.411

## THREAD CUTTING OILS & PASTES

Long tool life and optimum surface qualities; no problem with STRUB thread cutting oils and pastes. No matter whether single part or series production, internal or

external thread. We offer you the necessary lubricant. The wide range of different viscosities and performance classes leaves nothing to be desired.

STRUB Vulcan TCO	111
STRUB Vulcan Futura CF 18/140 AS	111

## STRUB Vulcan TCO

Special thread cutting, thread rolling, thread pressing and thread forming oil or paste

### DESCRIPTION

The additive combination of the product series STRUB Vulcan TCO or TCP is composed according to modern aspects in order to meet the special requirements of thread machining of high-alloy steels. Of course, other ferrous metals can also be machined.

### APPLICATION

The STRUB Vulcan TCO or TCP product range has been specially developed for thread machining (cutting and forming) of high-alloy steels. The product STRUB Vulcan TCO can also be used as cutting oil for the heaviest machining or for forming. STRUB Vulcan TCP is a paste for manual application; very suitable for high-speed tools where an oil would be thrown off. STRUB Vulcan TCP is offered in a handy brush tin for manual application.

ART.-NO.	ARTICLE	PACKAGE
30055	Vulcan TCO	1l / 5l / 10l / 20l / 60l / 200l
33619	Vulcan TCO 650	1l / 5l / 10l / 20l / 60l / 200l
30037	Vulcan TCP	1l / 5l / 10l / 20l / 60l / 200l

## STRUB Vulcan Futura CF 18/140 AS

Special thread cutting, thread rolling, thread pressing, thread forming and deep hole drilling oils

### DESCRIPTION

The additive combination of the STRUB Vulcan Futura CF 18/15, 18/18, 18/32, 18/480 AS series is composed according to the most modern aspects in order to meet the special requirements (machining and forming in successive working steps) of thread machining of high-alloy steels. Of course, other ferrous metals can also be machined. Machining of aluminum and non-ferrous alloys should only be carried out after consultation with our customer service.

### APPLICATION

STRUB Vulcan Futura CF 18/15, 18/18, 18/32, 18/480 AS series is specially designed for thread machining (thread forming, thread rolling) and deep hole drilling of steels, high alloy steels and chrome nickel steel. STRUB Vulcan Futura CF 18/15, 18/18, 18/32, 18/480 AS series can also be used as a cutting oil for the heaviest machining or for forming.

ART.-NO.	ARTICLE	PACKAGE
32082	Vulcan Futura CF 18/140 AS	1l / 5l / 10l / 20l / 60l / 200l



3.420

## PUNCHING OILS

Our STRUB standard portfolio of lubricants includes products for all punching operations and materials. In addition to highly volatile lubricants, we can offer you

a wide range of chlorine-containing and chlorine-free punching oils in different viscosities.

STRUB Vulcan Estamp	113
STRUB Vulcan Futura CF 18	113
STRUB Vulcan Estamp CF	114
STRUB Vulcan Estamp CF 9670	114
STRUB Vulcan Estamp CF 7000	115
STRUB Vulcan Estamp CF 7300	115



## STRUB Vulcan Estamp

Chlorinated high-performance fineblanking and punching oils

### DESCRIPTION

High-performance oils based on specially stabilized chlorinated kerosenes in combination with synergistically acting polar additives and highly effective corrosion protection components.

### APPLICATION

For fineblanking of steel and high-alloy steels at material thicknesses of:

- 1 to 5 mm (STRUB Vulcan Estamp 9648, 9668)
- 5 to 10 mm (STRUB Vulcan Estamp 9647)
- 5 to 15 mm (STRUB Vulcan Estamp 9649 V3)

ART.-NO.	ARTICLE	PACKAGE
30166	Vulcan Estamp 9647	5l / 10l / 20l / 60l / 200l / 1000l
30131	Vulcan Estamp 9648	5l / 10l / 20l / 60l / 200l / 1000l
31485	Vulcan Estamp 9649 V3	5l / 10l / 20l / 60l / 200l / 1000l
31951	Vulcan Estamp 9668	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcan Futura CF 18

High-performance multipurpose machining oil

### DESCRIPTION

STRUB Vulcan Futura CF 18 is a low-evaporation, chlorine-free medium-viscosity special oil with a specially designed high-performance additive. The base oils have been adapted to the latest industry standard and are aromatics-free.

### APPLICATION

STRUB Vulcan Futura CF 18 is ideally suited for a wide range of machining operations on all common materials, especially ferrous and non-ferrous metals, especially ferrous and non-ferrous metals. For punching, broaching, slotting, thread cutting, deep hole drilling, as decolletage oil on automatic machines. For soft machining in the field of gear hobbing, hobbing, STRUB Vulcan Futura CF 18 can be used for all materials in gear production from normal steel to higher quenched and tempered steels. The good cooling effect and performance additives of STRUB Vulcan Futura CF 18 contribute effectively to the reduction of thermal microstructural damage. STRUB Vulcan Futura CF 18 thus fulfills grade simplification.

ART.-NO.	ARTICLE	PACKAGE
31759	Vulcan Futura CF 18	1l / 5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcan Estamp CF

Chlorine-free fine punching oils, rolling oils

### DESCRIPTION

Mineral oil-based special oils with a synergistic highly effective combination of chlorine-free high-performance additives. Due to the viscosity and high-performance additives, STRUB Vulcan Estamp CF 9658 is particularly suitable for processes with high requirements, such as stamping of high-alloy steels as well as material thicknesses up to 15 mm and more.

### APPLICATION

For fine blanking of steel and high-alloy steels at material thicknesses of approx:

- up to 6 mm (STRUB Vulcan Estamp CF 9660) punching parts made of steel for closing technology, also Niro up to 4mm
- up to 8 mm (STRUB Vulcan Estamp CF 96/100) for stamping parts made of C45, C55, C75, Niro
- up to 10 mm (STRUB Vulcan Estamp CF 9651)
- up to 15 mm (STRUB Vulcan Estamp CF 9654, CF 9658, CF 9661 V4 and CF 9661 V5)

ART.-NO.	ARTICLE	PACKAGE
30095	Vulcan Estamp CF 9651	5l / 10l / 20l / 60l / 200l / 1000l
30119	Vulcan Estamp CF 9654	5l / 10l / 20l / 60l / 200l / 1000l
30187	Vulcan Estamp CF 9658	5l / 10l / 20l / 60l / 200l / 1000l
31385	Vulcan Estamp CF 9660	5l / 10l / 20l / 60l / 200l / 1000l
31093	Vulcan Estamp CF 9661 V4	5l / 10l / 20l / 60l / 200l / 1000l
32476	Vulcan Estamp CF 9661 V5	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcan Estamp CF 9670

Chlorine-free punching and fine blanking oil

### DESCRIPTION

Mineral oil-based special oil with a synergistically highly effective combination of chlorine-free high-performance additives.

### APPLICATION

For punching, fine blanking and embossing of aluminum, copper and other non-ferrous metal alloys with material thicknesses up to 10 mm. Punching and fine blanking of steel and high-alloy steels works up to material thicknesses of 3 mm

ART.-NO.	ARTICLE	PACKAGE
30246	Vulcan Estamp CF 9670	1l / 5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcan Estamp CF 7000

Punching and forming fluid

### DESCRIPTION

STRUB Vulcan Estamp CF 7000 is a low viscosity, chlorine-free, fast evaporating stamping and forming fluid with an effective combination of corrosion inhibitors.

### APPLICATION

STRUB Vulcan Estamp CF 7000 is used as a low viscosity, solvent-based stamping fluid for ferrous and light metals, as well as for galvanized sheet (white rust during storage is suppressed).

ART.-NO.

ARTICLE

PACKAGE

30893

Vulcan Estamp CF 7000

1l / 5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcan Estamp CF 7300

Chlorine free punching fluid

### DESCRIPTION

Very low viscosity, chlorine-free punching fluid based on a hydrocarbon solvent with synthetic polar highpressure additives.

### APPLICATION

For the production of perforated sheets. For steel, aluminum, brass and copper at approx. 1 to 3 mm sheet thickness and for hole sizes from 1 to 2 mm.

ART.-NO.

ARTICLE

PACKAGE

30398

Vulcan Estamp CF 7300

1l / 5l / 10l / 20l / 60l / 200l / 1000l



3.421

## FAST EVAPORATING PUNCHING OILS

Dry and clean workpieces with a long tool life. This is possible with the fast-evaporating punching oils from STRUB. Colourless and mild in odour, these chlorine- and sulphur-free special products have proven

themselves many times over. STRUB offers you an extensive portfolio in various performance classes for all materials.

STRUB Vulcan CF 2000 Series

117

## STRUB Vulcan CF 2000 Series

Evaporating high-performance cutting oils for ferrous and non-ferrous metals

### DESCRIPTION

High-performance cutting oil based on synthetic base oils and state-of-the-art active ingredients. Due to the high evaporation rate, the machined parts are (virtually) dry after the process when a spray application is used.

### APPLICATION

Best suited for stamping, punching, light forming, turning, drilling, milling, sawing, threading, bending and profiling of sheet metal. For steel, aluminum, Cr-Ni and copper alloys as well as galvanized sheets. Especially suitable and tested for use on Rapid Centers.

ART.-NO.	ARTICLE	PACKAGE
30396	Vulcan CF 2000	5l / 10l / 20l / 60l / 200l / 1000l
30866	Vulcan CF 2000 LR	5l / 10l / 20l / 60l / 200l / 1000l
31189	Vulcan CF 2000 LRS	5l / 10l / 20l / 60l / 200l / 1000l
31967	Vulcan CF 2000 LRS-G	5l / 10l / 20l / 60l / 200l / 1000l
30289	Vulcan CF 2000/100	5l / 10l / 20l / 60l / 200l / 1000l
33174	Vulcan CF 2000/130 Al	5l / 10l / 20l / 60l / 200l / 1000l
31612	Vulcan CF 2000 PALM	5l / 10l / 20l / 60l / 200l / 1000l
32618	Vulcan CF 2000 GT	5l / 10l / 20l / 60l / 200l / 1000l



3.075

## HARDENING OILS

STRUB offers you a range of different hardening oils based on mineral oil, ester and water, depending on the material, batch size and required surface finish. To ensure that you achieve a perfect surface hardness result, STRUB Vulcodur hardening oils are additivated in such a way that

a perfect quenching curve and uniform surface quality are achieved for the process. Due to the careful selection of base fluids, STRUB hardening oils are economical in consumption and therefore long-lasting.



STRUB Vulcodur HC 32	120
STRUB Vulcodur HC 12/15, 19/22, 22 EM	120
STRUB Vulcodur 100/150	121
STRUB Vulcodur Aqua	121

## STRUB Vulcodur HC 32

Synthetic abilities, Hardening oil

### DESCRIPTION

STRUB Vulcodur HC 32 is a universal, synthetic abilities high performance hardening oil, which prevents stains and residues on the piece. Thanks to the extremely good viscosity behavior, a wide application temperature can be applied in practice. STRUB Vulcodur HC 32 is resistant to temperature, oxidation and aging.

### APPLICATION

in hardening baths with very wide range of application from small to large parts.

ART.-NO.	ARTICLE	PACKAGE
30970	Vulcodur HC 32	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcodur HC 12/15, 19/22, 22 EM

Evaporation-resistant high-performance quenching oils

### DESCRIPTION

STRUB Vulcodur HC 12/15, 19/22, 19/32 and 22 EM are universal high-performance hardening oils based on high-quality, low-aromatic mineral oil solvent raffinates. Special additives ensure that particularly high cooling rates are achieved. STRUB Vulcodur 19/22 as well as 19/32, 22 EM are more resistant to evaporation

### APPLICATION

STRUB Vulcodur HC 12/15 low-viscosity high-performance quenching oil for hardening of unalloyed and lowalloyed steels, highest quenching intensity, very stable against oxidation and long service life. STRUB Vulcodur 19/22 and 19/32 for forgings and automotive springs via a wide variety of gear parts for cars, trucks and machine tools up to large-dimensioned shafts and gears for marine gearboxes. Also well suited for hardening distortion-sensitive rolling bearing parts and tools made of high-alloy tool steels. STRUB Vulcodur HC 22 EM emulsifies with water and is therefore easy to clean or rinse.

ART.-NO.	ARTICLE	PACKAGE
31195	Vulcodur HC 12/15	5l / 10l / 20l / 60l / 200l / 1000l
33140	Vulcodur HC 22 EM	5l / 10l / 20l / 60l / 200l / 1000l
31184	Vulcodur HC 19/22	5l / 10l / 20l / 60l / 200l / 1000l



# STRUB Vulcodur 100/150

Tempering oil

## DESCRIPTION

STRUB Vulcodur 100/150 is a semi-synthetic, low evaporation tempering oil. This product has been specially adapted to our synthetic bright tempering oils. The additive system guarantees highest thermal stability as well as oxidation resistance even under unfavorable operating conditions.

## APPLICATION

STRUB Vulcodur 100/150 is primarily used for tempering and stress relieving of hardened steel parts. The maximum operating temperature is 220°C.

ART.-NO.

ARTICLE

PACKAGE

31060

Vulcodur 100/150

5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Vulcodur Aqua

Quenching polymer concentrate for induction and flame hardening systems

## DESCRIPTION

STRUB Vulcodur Aqua is based on toxicologically safe polymers that allow very different cooling characteristics depending on the application concentration. The cooling intensity of water is thus specifically moderated. At the same time, controlled and uniform heat dissipation from the workpiece is ensured.

## APPLICATION

Universally applicable PAG polymer quenchant for surface hardening in the borderline area of water / oil quenching. Due to its excellent properties STRUB Vulcodur Aqua is recommended for the following applications:

### Application concentration Materials

#### Low and unalloyed steels

C35, C45, CK35, CK45, 34Cr4, 37MnSi5      **5 - 8 %**  
C60, C70, 41Cr4, 55Si7, 100Cr6      **8 - 15 %**

#### Higher alloy steels

42CrMo4, 50CrV4 u.ä.      **15 - 20 % (max. 30 %)**  
Austenitic sheets, tubes and profiles      **5 - 10 %**  
Age-hardenable aluminum alloys      **10 - 30 %**

ART.-NO.

ARTICLE

PACKAGE

31462

Vulcodur Aqua

5l / 10l / 20l / 60l / 200l / 1000l



3.425

## MINIMUM QUANTITY LUBRICANTS

With a minimum consumption of approx. 50 ml per hour with good sprayability and excellent surface wetting, products from the Innocut product range are optimal and

powerful minimum quantity lubricants. The finely tuned composition enables an optimal result in the machining result with the best cooling effect.

STRUB Innocut E 84

123

STRUB Innocut - Serie

123

# STRUB Innocut E 84

The liquid high-tech tool for minimum quantity lubrication



## DESCRIPTION

Minimum quantity lubrication built up from specially synthetic raw materials based on renewable raw materials with a special additive system. Particularly suitable for steels up to high toughness steels. Heat treatment. without cleaning possible.

## APPLICATION

STRUB Innocut E 84 has been specially developed for normal to heavy and heaviest machining of steel, aluminum, non-ferrous metals and cast iron using minimum quantity lubrication.

ART.-NO.	ARTICLE	PACKAGE
30944	Innocut E 84	5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Innocut - Serie

The liquid high-tech tools for minimum quantity lubrication



## DESCRIPTION

Minimum quantity lubrication built up from specially synthetic raw materials based on renewable raw materials with a special additive system. Particularly suitable for steels up to highly ductile steels. Heat treatment possible without cleaning.

## APPLICATION

The STRUB Innocut series has been specially developed for normal to heavy and heaviest cutting of steel, aluminium, non-ferrous metal and cast iron using minimum quantity lubrication.

### This is how you achieve optimum results with Machining with MMKS technology

- by using the right tool
- by adapting your machine tool to the new technology
- by using the right spraying system
- by using the right lubricant

ART.-NO.	ARTICLE	PACKAGE
30851	Innocut EM 22	5l / 10l / 20l / 60l / 200l / 1000l
30479	Innocut EM 46	5l / 10l / 20l / 60l / 200l / 1000l
31023	Innocut EM 2100	5l / 10l / 20l / 60l / 200l / 1000l
30772	Innocut A 1000	5l / 10l / 20l / 60l / 200l / 1000l
31663	Innocut A 1000-710	5l / 10l / 20l / 60l / 200l / 1000l
32499	Innocut A 550	5l / 10l / 20l / 60l / 200l / 1000l
31978	Innocut MS 40	5l / 10l / 20l / 60l / 200l / 1000l
33283	Innocut L 5000	5l / 10l / 20l / 60l / 200l / 1000l
32464	Innocut P 68	5l / 10l / 20l / 60l / 200l / 1000l

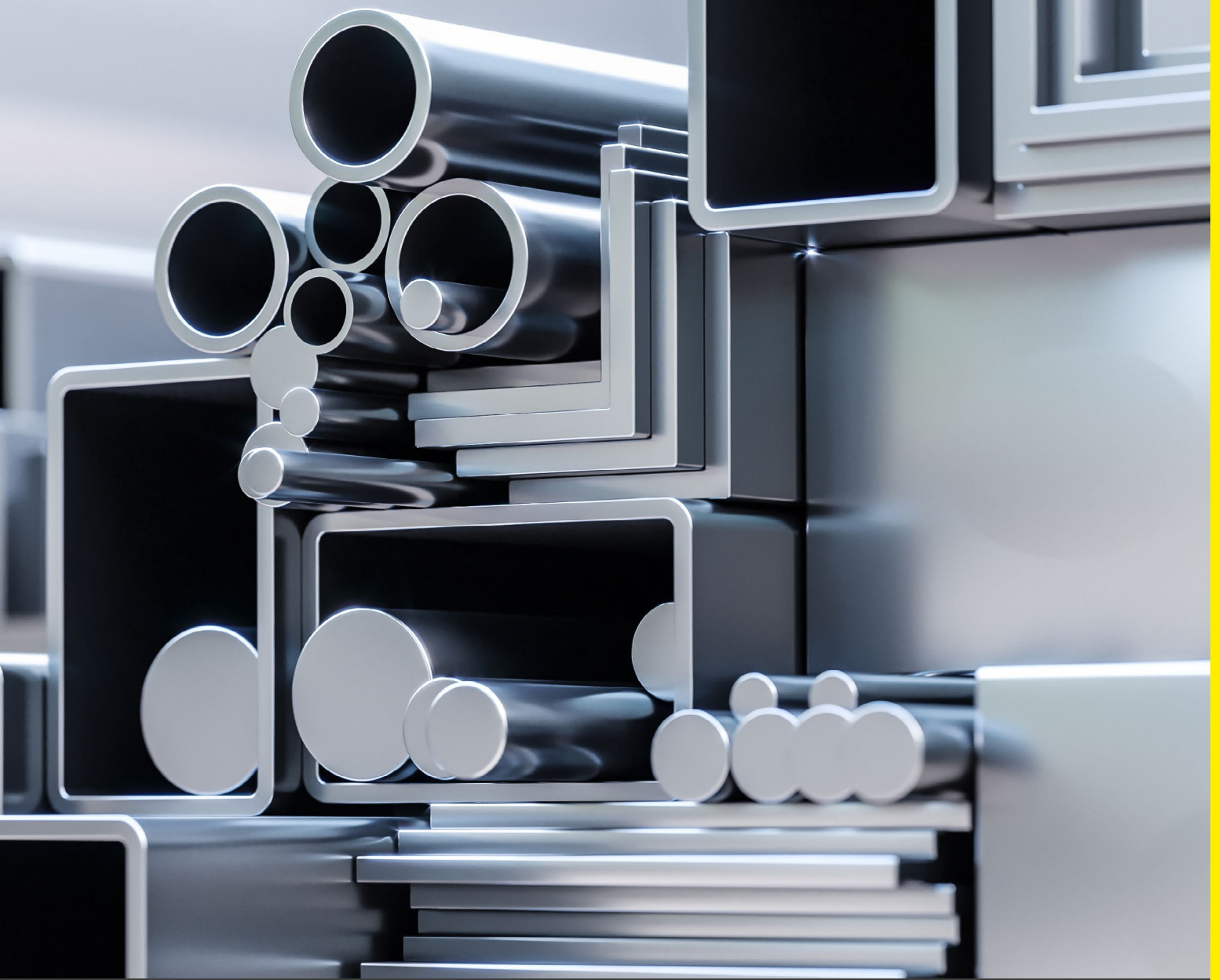


**3.430**

## **DRAWING AND FORMING OILS**

STRUB drawing and forming oils are excellently suited for the most difficult forming operations of all materials. The exceptionally powerful additivation of these products

enables economically efficient use with long die and punch service lives. Whether chlorine-free or chlorine-containing products.



STRUB Vulcan TCP	126	STRUB Vulcan Draw CF Serie	129
STRUB Vulcan Draw Serie	126	STRUB Vulcan Futura CF 5700 without perfume	129
STRUB Vulcan Draw CF 170	127	STRUB Vulcan Futura CF 5900	130
STRUB Vulcan Draw CF 520	127	STRUB Vulcan 4700	130
STRUB Vulcan Draw CF 554	127	STRUB Vulcoroll 4 H+T	130
STRUB Vulcan Draw CF 555 D2	128	STRUB Vulcoroll 8 H+T	131
STRUB Vulcan Draw CF 821	128		

## STRUB Vulcan TCP

Special thread cutting, thread rolling, thread pressing and thread forming oil or paste

### DESCRIPTION

The additive combination of the product series STRUB Vulcan TCO or TCP is composed according to modern aspects in order to meet the special requirements of thread machining of high-alloy steels. Of course, other ferrous metals can also be machined.

### APPLICATION

The STRUB Vulcan TCO or TCP product range has been specially developed for thread machining (cutting and forming) of high-alloy steels. The product STRUB Vulcan TCO can also be used as cutting oil for the heaviest machining or for forming. STRUB Vulcan TCP is a paste for manual application; very suitable for high-speed tools where an oil would be thrown off. STRUB Vulcan TCP is offered in a handy brush tin for manual application.

ART.-NO.	ARTICLE	PACKAGE
30037	Vulcan TCP	PIDO 250 / KKE12JET / KDO-1000WE / BKE5 / BKE 25 / FFB / FTS

## STRUB Vulcan Draw Serie

High-performance drawing and forming oils (Inox)

### DESCRIPTION

Non-water miscible high performance drawing and forming oils. STRUB Vulcan Draw contains chlorinated EP additives, esters, corrosion and aging inhibitors. Non-resinous, oily film which can be easily removed with commercial cleaners.

### APPLICATION

STRUB Vulcan Draw 150 medium viscosity, for chipless forming, including cold pilgering (external and internal), deep drawing fine blanking, bending of steel and stainless steel materials. STRUB Vulcan Draw 560, 900, 1000, 7000 high viscosity, as wire drawing oil for steels, special steels, extreme drawing operations on high strength stainless austenitic steels, as well as nickel and titanium. Among others, stainless steel wire drawing on Schumag- machines with 30 - 55 m/s at a reduction of approx. 10 %.

ART.-NO.	ARTICLE	PACKAGE
30392	Vulcan Draw 150	5l / 10l / 20l / 60l / 200l / 1000l
32368	Vulcan Draw 560	5l / 10l / 20l / 60l / 200l / 1000l
30800	Vulcan Draw 900	5l / 10l / 20l / 60l / 200l / 1000l
30995	Vulcan Draw 1000	5l / 10l / 20l / 60l / 200l / 1000l
32615	Vulcan Draw 7000	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcan Draw CF 170

Synergistically acting high-performance drawing and forming oil

### DESCRIPTION

STRUB Vulcan Draw CF 170 is a special lubricant which is used for drawing and forming of chrome steel, steel profiles, stamped and bent parts.

### FEATURES

Synergistically acting additive combination to increase lubricity. Low odor and evaporation tendency. Very good compressive strength and wetting capacity.

ART.-NO.

ARTICLE

PACKAGE

31616

Vulcan Draw CF 170

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcan Draw CF 520

Chlorine-free high-performance drawing and forming oil

### DESCRIPTION

STRUB Vulcan Draw CF 520 is a special lubricant for deep drawing and forming. The synergistically acting additives and excellent lubricating properties allow its use even in difficult forming operations and high-alloy materials. Due to its special properties STRUB Vulcan Draw CF 520 is an alternative to products containing chlorine.

### APPLICATION

STRUB Vulcan Draw CF 520 is a special lubricant used for deep drawing and forming of steel profiles, sheet metal, stamped and bent parts. The product has been specially developed for medium to high-alloy, acidresistant steels and aluminum alloys. The cleaning of the machined workpieces can be done with alkaline-aqueous cleaners as well as with solvents.

ART.-NO.

ARTICLE

PACKAGE

31860

Vulcan Draw CF 520

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcan Draw CF 554

Chlorine- and aromatics-free drawing and forming oil

### DESCRIPTION

STRUB Vulcan Draw CF 554 is a chlorine-free drawing and forming oil. The balanced additive combination and thus achieved EP properties of STRUB Vulcan Draw CF 554 enable long tool life as well as excellent surfaces of the machined parts. Due to its special properties STRUB Vulcan Draw CF 520 is an alternative to products containing chlorine.

### APPLICATION

STRUB Vulcan Draw CF 554 is suitable for light to difficult forming processes, especially for ferrous metals, steels and aluminum alloys. The use of STRUB Vulcan Draw CF 554 with non-ferrous alloys is not recommended.

ART.-NO.

ARTICLE

PACKAGE

31146

Vulcan Draw CF 554

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcan Draw CF 555 D2

Chlorine- and aromatics-free punching and drawing oil

### DESCRIPTION

STRUB Vulcan Draw CF 555 D2 is excellently suited for light to difficult punching operations, drawing operations especially for ferrous metals and steels. Good results can also be expected with aluminum alloys with higher silicon content.

### FEATURES AND ADVANTAGES

STRUB Vulcan Draw CF 555 D2 is an ester-based, chlorine-free metalworking oil which is characterized by good oil mist and vapor behavior. The balanced combination of polar, EP additives and anti-wear additives delivers very good load carrying capacity. The high additive content and the resulting EP properties of STRUB Vulcan Draw CF 555 D2 lead to savings in machining costs. STRUB Vulcan Draw CF 555 D2 ensures very good tool life as well as excellent surfaces of the machined parts. STRUB Vulcan Draw CF 555 D2 is characterized by a mild odor and is low in oil mist due to its selected additives.

ART.-NO.

ARTICLE

PACKAGE

31418

Vulcan Draw CF 555 D2

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcan Draw CF 821

Fully synthetic chlorine-free drawing and forming oil

### DESCRIPTION

STRUB Vulcan Draw CF 821 is a highly viscous, fully synthetic special lubricant for difficult drawing and forming operations. The excellent lubricating and high-pressure properties provide a well-adhering and resistant lubricating film that protects the surfaces of the tool and workpiece even under high loads. The high performance of the product allows economical and economic use.

### APPLICATION

STRUB Vulcan Draw CF 821 is a special lubricant for deep drawing and forming of steels, chrome steels, aluminum and non-ferrous metals as well as their alloys. Even more difficult forming processes can be realized with STRUB Vulcan Draw CF 821. The cleaning of the machined parts can be done with alkaline-aqueous cleaners as well as with solvents.

ART.-NO.

ARTICLE

PACKAGE

31457

Vulcan Draw CF 821

5l / 10l / 20l / 60l / 200l / 1000l



## STRUB Vulcan Draw CF Serie

Fully synthetic drawing oil

### DESCRIPTION

For difficult drawing operations of aluminum and aluminum alloys.

### FEATURES AND ADVANTAGES

Fully synthetic, high viscosity drawing oil with excellent lubricity and high pressure properties. This special oil is very light in color, low in odor and has minimal evaporation. Chlorine free. Degreasing is possible with the usual solvents or alkaline cleaners.

- high surface quality
- economical
- economical
- clean working

ART.-NO.	ARTICLE	PACKAGE
30558	Vulcan Draw CF 822/500	5l / 10l / 20l / 60l / 200l / 1000l
30067	Vulcan Draw CF 822/1000	5l / 10l / 20l / 60l / 200l / 1000l
32226	Vulcan Draw CF 822/1300	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcan Futura CF 5700 without perfume

High performance cutting oil

### DESCRIPTION

STRUB Vulcan Futura CF 5700 without perfume is a high-performance cutting oil based on carefully selected mineral oils and a state-of-the-art combination of synergistically acting high-pressure additives, and other active ingredients. The product is chlorine-free, low in oil mist and relatively low in odor. It enables dimensional stability, increases tool life and helps to achieve excellent surface quality.

### APPLICATION

For machining medium and high-alloy steels, tough steel alloys, cast steel and gray cast iron. For simplification, it can also be used for machining non-ferrous metals.

ART.-NO.	ARTICLE	PACKAGE
31965	Vulcan Futura CF 5700 without perfume	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcan Futura CF 5900

Synthetic rolling and forming oil

### DESCRIPTION

STRUB Vulcan Futura CF 5900 is a chlorine- and mineral oil-free high-performance rolling and forming oil. It does not contain any heavy metals and is chlorine-free. Cleaning can take place both alkaline-aqueous and with solvents.

### APPLICATION

STRUB Vulcan Futura CF 5900 is a special lubricant used for roll forming, cold extrusion and punching of ferrous alloys, steel, quenched and tempered steel, cast iron, stainless steel, titanium-nickel alloys. Not suitable for nonferrous metals!

ART.-NO.

ARTICLE

PACKAGE

32398

Vulcan Futura CF 5900

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcan 4700

Drawing fluid

### DESCRIPTION

Low viscosity drawing fluid based on a synergistic mixture of mineral oil with chlorinated kerosenes.

### APPLICATION

Low viscosity drawing fluid for the first draw of chrome steel. Can be used if further drawing operations are subsequently carried out with other drawing oils. Can also be used as a punching fluid in individual cases. Application only after consultation.

ART.-NO.

ARTICLE

PACKAGE

30390

Vulcan Futura 4700

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcoroll 4 H+T

Cold rolling oil

### DESCRIPTION

STRUB Vulcoroll 4 H+T consists of highly refined base oils and special additives, which ensure the required lubrication and oxidation stability. In addition, the product is characterized by its high penetration and washing effect. Sedimentation or sludge formation (tank internal storage) is suppressed by STRUB Vulcoroll 4 H+T. Even during after-annealing, no staining occurs on a wide variety of steel alloys. STRUB Vulcoroll 4 H+T is excellently suited in active or also inactive ground filter systems.

### APPLICATION

STRUB Vulcoroll 4 H+T guarantees reliable lubrication and cooling over a wide range of applications in cold rolling of carbon, austenitic and ferritic stainless steels. In Multi-Roller Sendzimir Z-High Mills and Tandem Multi-Roller. Vulcoroll 4 H+T is also suitable for grinding and belt polishing operations.

ART.-NO.

ARTICLE

PACKAGE

33487

Vulcoroll 4 H+T

5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Vulcoroll 8 H+T

Cold rolling oil

## DESCRIPTION

STRUB Vulcoroll 8 H+T consists of highly refined base oils and special additives, which ensure the required lubrication and oxidation stability. In addition, the product is characterized by its high penetration and washing effect. Sedimentation or sludge formation (tank internal storage) is suppressed by STRUB Vulcoroll 8 H+T. Even during after-annealing, no staining occurs on a wide variety of steel alloys. STRUB Vulcoroll 8 H+T is excellently suited in active or also inactive ground filter systems.

## APPLICATION

STRUB Vulcoroll 8 H+T guarantees reliable lubrication and cooling over a wide range of applications in cold rolling of carbon, austenitic and ferritic stainless steels. In multi-roller Sendzimir Z-High Mills and tandem multirollers. Vulcoroll 8 H+T is also suitable for grinding and belt polishing operations.

**ART.-NO.**

**ARTICLE**

**PACKAGE**

31821

Vulcoroll 8 H+T

5l / 10l / 20l / 60l / 200l / 1000l



## GRINDING OILS

Grinding burn, stuck grinding wheels, cobalt leaching are a thing of the past. Excellent cooling and flushing properties characterise STRUB's low-foaming grinding oils. For particularly demanding grinding operations such

as profile grinding or the grinding of hard metal and hard metal tools, we offer synthetic products with outstanding performance.

STRUB Vulcan Grind CF 14	133
STRUB Vulcan Futura CF 71 und CF 81	133
STRUB Vulcan Futura CF 710 NF	134
STRUB Vulcan Grind CF GtL Serie	134

## STRUB Vulcan Grind CF 14

High performance, Grinding and cutting oil

### DESCRIPTION

STRUB Vulcan Grind CF 14 is a low viscosity, light colored, chlorine and metal free, highly additive polar grinding and cutting oil. The product range features the latest QPLC technology. Quality, performance, longevity and cost/benefit are focused on.

### APPLICATION

STRUB Vulcan Grind CF 14 is suitable for cylindrical, surface, pendulum, form and profile grinding of NiTi alloys (medical technical special alloys) as well as for carbide, HSS, rapid steels with grinding wheels made of diamond, ceramics, CBN components, etc.

ART.-NO.	ARTICLE	PACKAGE
32477	Vulcan Grind CF 14	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcan Futura CF 71 und CF 81

High Performance, Grinding oils

### DESCRIPTION

Low-viscosity light-colored grinding oils with polar additives. Furthermore, the products are characterized by excellent foaming behavior as well as increased tool life. Elastomers such as rubber sleeves, O-rings, electrical cables and also machine paints are not attacked by STRUB Vulcan Futura CF 71 and CF 81. The high pressure absorption capacity, high penetration and flushing effect result in a good grinding result.

### APPLICATION

STRUB Vulcan Futura CF 71 and 81 is used for form, profile, surface, pendulum and cylindrical grinding of carbide, HSS, rapid steels, other steels, for grinding with CBN, ceramics, diamond etc. on all grinding machines. Especially on Rollmatic CNC machines very good results were achieved with STRUB Vulcan Futura CF 71 for flute grinding of stainless steel.

ART.-NO.	ARTICLE	PACKAGE
30770	Vulcan Futura CF 71	5l / 10l / 20l / 60l / 200l / 1000l
30983	Vulcan Futura CF 81	5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcan Futura CF 710 NF

High performance, Grinding oils / Decolletage oil

### DESCRIPTION

Synthetic, self-extinguishing, flame retardant fluid of the latest generation. Selective polar additivation, odorless, free of chlorine and heavy metals, low-mist, skin-friendly, excellent corrosion protection, oxidation-resistant. The high pressure absorption capacity, high penetration and rinsing effect result in a first class sanding pattern. Check miscibility with other products, our laboratories are at your disposal.

### APPLICATION

STRUB Vulcan Futura CF 710 NF is used for form, profile, plane pendulum and cylindrical grinding, high speed milling of HSS, Rapid steels, other steels, grinding with CBN, ceramics, diamond etc. on all grinding machines which are set up for "oil lubrication cooling".

#### ART.-NO.

31165

#### ARTICLE

Vulcan Futura CF 710 NF

#### PACKAGE

5l / 10l / 20l / 60l / 200l / 1000l

## STRUB Vulcan Grind CF GtL Serie

GtL based, chlorine-free high-performance grinding oil

### DESCRIPTION

STRUB Vulcan Grind CF GtL is a chlorine-free high-performance grinding oil based on GtL base oils. Due to its composition, this grinding oil has optimum flushing and cooling properties, which enable high surface qualities and tool life. The result is no burn marks on the workpiece and no sticking / deposits on the grinding wheel.

### APPLICATION

Suitable for all grinding operations of all materials.

#### ART.-NO.

33621

#### ARTICLE

Vulcan Grind CF GtL 5

#### PACKAGE

5l / 10l / 20l / 60l / 200l / 1000l

33615

Vulcan Grind CF GtL 7

5l / 10l / 20l / 60l / 200l / 1000l

33622

Vulcan Grind CF GtL 10

5l / 10l / 20l / 60l / 200l / 1000l

# GtL cutting and grinding oils

BASED ON GAS-TO-LIQUID-TECHNOLOGY

STRUB VULCAN FUTURA CF GTL SERIE 10, 15, 22, 32

STRUB VULCAN GRIND CF GTL SERIE 5, 7, 10

# 120%



The cutting and grinding oils are based on the fully synthetic, ultra-pure base oils of Gas to Liquid (GtL) technology. The GtL are synthesised from natural gas. Due to the high-purity base and the synergistic additive combination, the products are characterised by best performance. Low vaporisation and a high flash point create a safe and pleasant workplace. The product series is suitable for most machining processes, but especially for difficult operations such as grinding, deep hole drilling, broaching and honing.

## ↓ GtL advantages

### **Very low evaporation**

LOW FOGGING IN THE MACHINE ROOM AND EXCELLENT HEALTH AND ENVIRONMENTAL PROFILE

### **Very good wash-off behaviour**

NO DEPOSITS IN THE MACHINE ROOM AND ON THE TOOLS

### **High flash point**

SAFETY AND MAXIMUM SPEED FOR DIFFICULT OPERATIONS IN PRODUCTION

### **Extremely oxidation stable**

PROLONGED SERVICE LIFE EVEN WITH INCREASED WORKLOAD

### **Odourless**

FORMULATION ON THE BASIS OF ULTRA-PURE OILS

### **Excellent air separation capacity**

NO FOAMING AT HIGH PRESSURE AND HIGH SPEED MACHINING

### **Increased tool life**

HIGHEST ECONOMIC EFFICIENCY

### **Excellent workpiece surfaces**

HIGH DIMENSIONAL ACCURACY

### **Little change of the pressure-viscosity behaviour**

OPTIMISED AND CONSTANT PRODUCTION AS WELL AS REDUCTION OF THE ENERGY CONSUMPTION OF THE PUMPS



3.450

## LAPPING AND HONING OILS

Tight dimensional and shape tolerances as well as optimum surface roughness. STRUB lapping and honing oils are the perfect choice for ultra-fine surface finishing. Due to their

exceptional flushing effect and grain carrying capacity combined with outstanding chip retention, these products form the basis for perfect surfaces.

STRUB Vulcolap Serie

137



# STRUB Vulcolap Serie

Honing oil and deep hole drilling oils

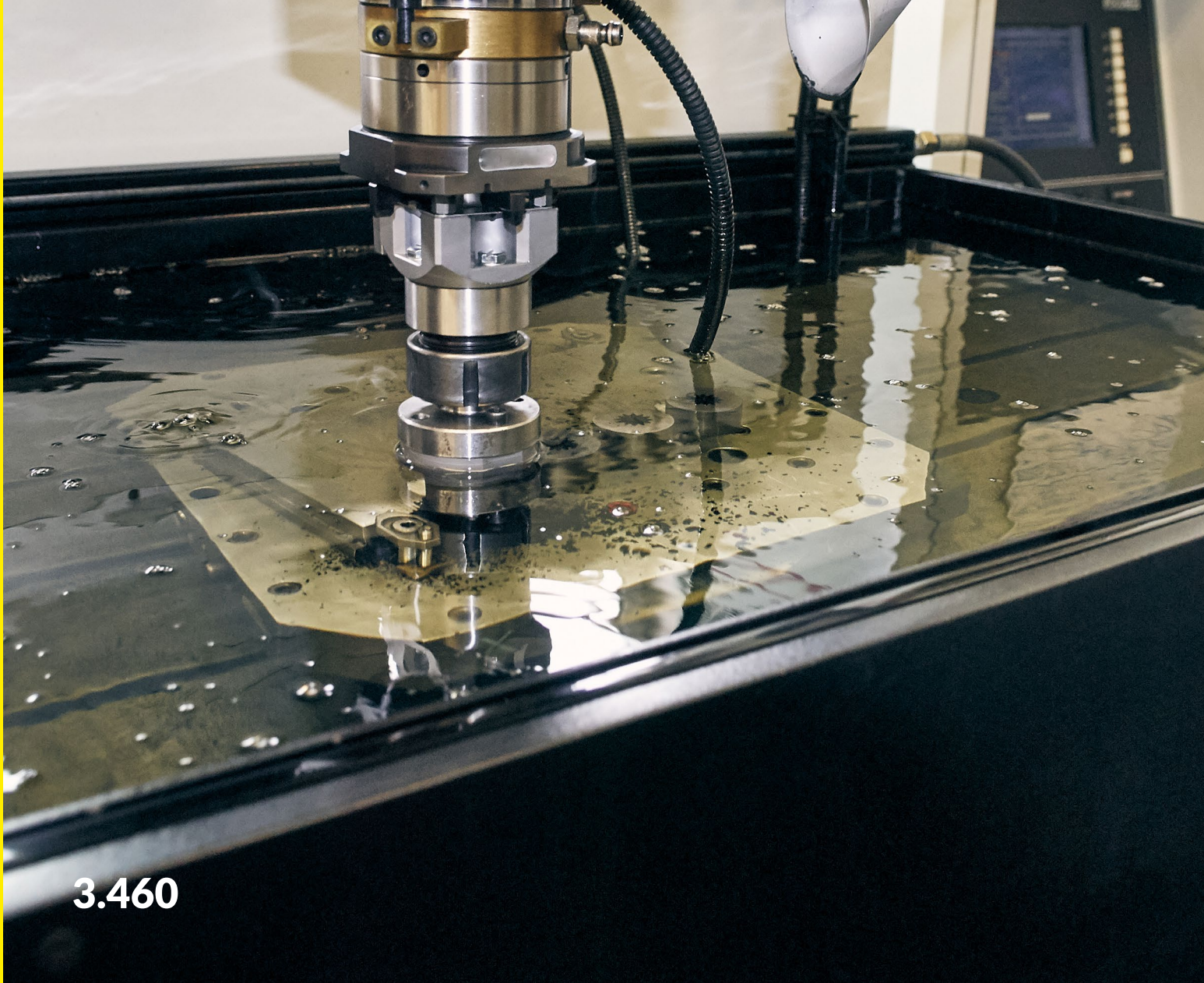
## DESCRIPTION

Bright, highly additivated, polar acting honing lapping and cutting oils. Enable excellent surface finishes. STRUB Vulcolap is free of chlorine, PCB's, PCA's, PCT's etc.

## APPLICATION

Low to medium viscosity special oils for honing and lapping (e.g. Sunnen machines), of tough-hard materials. Among other things, they are also excellently suited for high metal removal rates, as is the case with honing with diamond stones or deep hole drilling. STRUB Vulcolap 30 especially for cast iron.

ART.-NO.	ARTICLE	PACKAGE
31812	Vulcolap 7	5l / 10l / 20l / 60l / 200l / 1000l
30421	Vulcolap 10	5l / 10l / 20l / 60l / 200l / 1000l
31974	Vulcolap 20	5l / 10l / 20l / 60l / 200l / 1000l
30212	Vulcolap 30	5l / 10l / 20l / 60l / 200l / 1000l



**3.460**

## **EROSION OILS**

High dimensional accuracy and adjustable surface qualities are results you achieve with STRUB spark erosion oils. Even with materials that are difficult to machine, these products show what an oil can be capable of. Highly pure

and with low evaporation, these lubricants fulfil the highest requirements of our customers with a long service life in both roughing and finishing operations.

STRUB Erodfluid 239

139

## STRUB Erodfluid 239

Dielectrics for electrical discharge machining of metals,  
Catalytic synthesis product

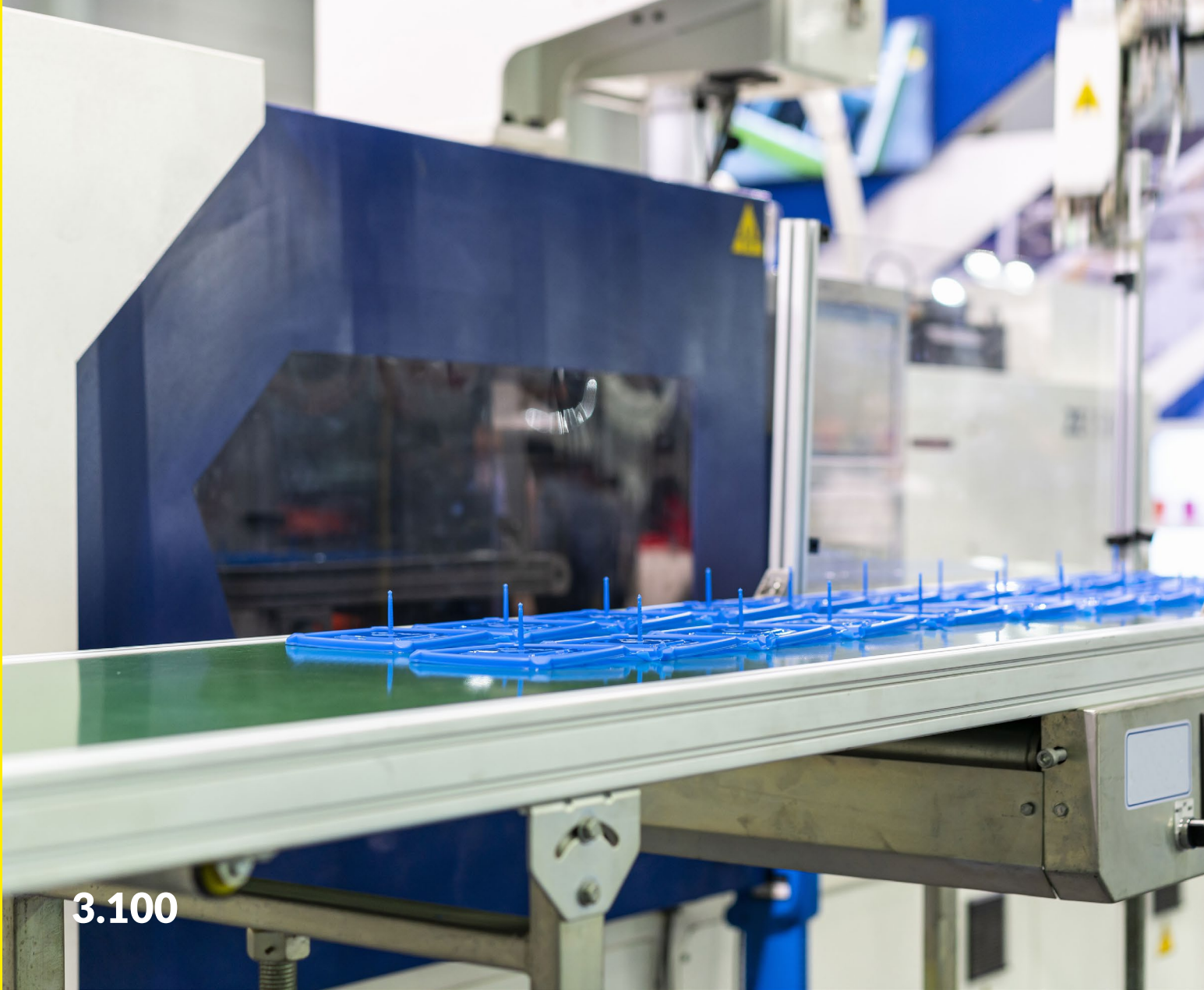
### DESCRIPTION

STRUB Erodfluids are low-viscosity catalytic synthesis products for use as dielectrics in electrical discharge machines of all performance classes. The STRUB Erodfluid range of grades covers the spectrum of the most diverse applications. They meet all requirements in terms of economic removal rate, filterability, flushing capability, cooling effect and aging resistance.

### APPLICATION

STRUB Erodfluid 235 + 239 are multi-purpose fluids for roughing and finishing operations. STRUB Erodfluid 200 + 220 are used in modern EDM machines with higher power density, which require an improved flushing effect in roughing operation due to a lower viscosity dielectric.

ART.-NO.	ARTICLE	PACKAGE
30384	Erodfluid 239	10l / 20l / 60l / 200l



3.100

## SILICONE OILS

Exceptional temperature-viscosity behaviour and low influence of viscosity under shear stress make STRUB silicone oils high-performance lubricants for special applications and are suitable, among other things, as

lubricating, separating and heat transfer fluids. The good sealing compatibility also enables the use without hesitation with polymers and plastics.

STRUB Silicone oils

141

## STRUB Silicone oils

Typ 200/20, 200/50, 200/100, 200/200, 200/350, 200/500, 200/1000

### DESCRIPTION

STRUB silicone oils (polymethylsiloxanes) belong to the group of synthetic oils and are available in different viscosity grades. Silicone oils are characterized by their good resistance to heat, cold, moisture and the low change in physical properties over a wide temperature range. The temperature application range can be between -40°C and +204°C.

### APPLICATION

STRUB silicone oils are used for special lubricants in low and high temperature applications, as base oils for lubricating greases (lifetime lubrication), and in formulations for chem. Special products. Furthermore, silicones can be used for the production of release agents, defoamers, insulating and damping materials. On most elastomers and plastic surfaces, the fluid has an excellent lubricating effect.

ART.-NO.	ARTICLE	PACKAGE
31175	Silicone oils 200/20	1l / 10l / 20l / 60l / 200l / 1000l
30960	Silicone oils 200/50	1l / 10l / 20l / 60l / 200l / 1000l
31268	Silicone oils 200/100	1l / 10l / 20l / 60l / 200l / 1000l
30720	Silicone oils 200/200	1l / 10l / 20l / 60l / 200l / 1000l
33479	Silicone oils 200/350	1l / 10l / 20l / 60l / 200l / 1000l
31008	Silicone oils 200/500	1l / 10l / 20l / 60l / 200l / 1000l
31788	Silicone oils 200/1000	1l / 10l / 20l / 60l / 200l / 1000l



**3.470**

## **FORMING PASTES**

In addition to our excellent forming oils, we also offer you a selection of forming pastes for all materials for particularly demanding processes.

STRUB Squeezing Grease 411 (Rev. 4)	143
STRUB pulling and squeezing grease 5090	143
STRUB Drawing Compound SF2	143

## STRUB Squeezing Grease 411 (Rev. 4)

Squeezing grease for ferrous and non-ferrous metals

### DESCRIPTION

STRUB Squeezing Grease 411 (Rev. 4) is a water-dilutable drawing and spinning grease based on natural fatty substances and soaps. Diluted with water to the desired consistency before use, depending on the material and material thickness.

### APPLICATION

In metal spinning, as well as various forming operations of sheets based on ferrous and non-ferrous metals.

ART.-NO.

ARTICLE

PACKAGE

30447

Squeezing Grease 411 (Rev. 4)

KKE-30 / KDO-1000WE

## STRUB pulling and squeezing grease 5090

For ferrous, chromium steel and copper alloys



### DESCRIPTION

STRUB Drawing and Spinning Grease 5090 is a beige, water-dilutable drawing and spinning grease based on natural fatty substances and soaps.

### APPLICATION

In metal spinning as well as various forming operations of sheets based on ferrous, chromium steel and copper alloys. Diluted with water to the desired consistency before use, depending on the material and material thickness. (20 - 40 % STRUB Drawing and Spinning Grease 5090 in water).

ART.-NO.

ARTICLE

PACKAGE

30467

pulling and squeezing grease 5090

KKE-30P / KKE-12JET / KDO-1000WE

## STRUB Drawing Compound SF2

For ferrous and chromium steel alloys



### DESCRIPTION

Beige, water-dilutable drawing and spinning grease based on natural fatty substances and soaps. The product is diluted with water to the desired concentration (20 - 40 % STRUB Drawing Compound SF2 in water) before use, depending on the material and material thickness.

### APPLICATION

In metal drawing and spinning and various sheet metal forming operations based on ferrous and chromium steel alloys.

ART.-NO.

ARTICLE

PACKAGE

31315

Drawing Compound SF2

KKE-12JET / KKE-30



3.490

## DIE LUBRICANT

STRUB's graphite-containing and graphite-free die lubricants are the best choice for hot forming. Adhering

to the strictest environmental and quality standards, our products enable maximum die and tool life.

STRUB Zinkol 9910	145
STRUB Zonal 160/02	145
STRUB Special forming lubricant F 318 N/INE	146



## STRUB Zinkol 9910

Synthetic drop forging lubricant

### DESCRIPTION

STRUB Zinkol 9910 is a water-soluble release agent and lubricant and is suitable for all operations on forging hammers and presses. Although STRUB Zinkol 9910 does not contain any solid components and no PTFE components and silicones are added, excellent separation between tool and workpiece is achieved as a result of the driving and lubricating effect. Clean surface quality, optimum structure and long tool life are achieved. No lubricant residues form on tools and parting lines at any application concentration.

### APPLICATION

STRUB Zinkol is used as a universal drop forging lubricant for light to medium-duty work on all materials, including light and non-ferrous metals. It is also ideally suited for precision forging. Before spraying the dies, the dies must be heated up to 200 to 250°C

ART.-NO.

ARTICLE

PACKAGE

30313

Zinkol 9910

10l / 20l / 60l / 200l

## STRUB Zonal 160/02

drop forge lubricant

### DESCRIPTION

Zonal 160/02 is a water-miscible die lubricant containing graphite for the non-cutting hot forming of metals. It prevents sticking of metals to dies and tools. The product reduces friction during forming and ensures metal flow. It is a forming lubricant concentrate. Mixing ratios of 1:10 are feasible even for parts that are difficult to demold. Zonal 160/02 is an aqueous dispersion of graphite in water with the addition of native raw materials. Due to its very good wetting ability on hot tools, it is suitable for working temperatures up to + 1400 °C.

### APPLICATION

Zonal 160/02 is usually diluted 1:8 to 1:15 with water. In special cases, such as damaged, cracked surfaces, temporary enrichment with concentrate is advisable. The lubricant-water mixture must be kept in motion by constant agitation to prevent settling of the graphite particles. The ready-to-use mixture is applied either manually with a hand sprayer or with the aid of an automatic spraying device.

ART.-NO.

ARTICLE

PACKAGE

32509

Zonal 160/02

10l / 20l / 60l / 200l

# STRUB Special forming lubricant F 318 N/INE

Water-miscible, graphite-free die lubricant

## DESCRIPTION

Special Forming Lubricant F 318 N/INE is water-miscible, graphite-free lubricant for hot forming. The product has excellent lubricating and release properties. The friction-reducing and release properties lead to a significant reduction of the forming force and improve the demoldability of the forged parts. The use of Special Forming Lubricant F 318 N/INE improves the surface quality of the parts and reduces the number of defects.

## APPLICATION

Special forming lubricant F 318 N/INE can be used for hot forming of steel. The concentrate is diluted with water and applied by spraying. The following application concentrations are recommended:

Light forming:	1:20 – 1:40
Average forming:	1:10 – 1:20
Heavy forming work:	1:5 – 1:10

ART.-NO.

ARTICLE

PACKAGE

31406

Special Forming Lubricant F 318 N/INE

10l / 20l / 60l / 200l



3.675

## SPECIAL PRODUCTS

If you should not find the optimal product for your application in our programme of more than 1600 lubricant specialities, we create intelligent solutions and tailor-

made products for your specific concern. Your problem is our task - call us and challenge us. We will be happy to demonstrate our capabilities to you.

STRUB Wire rope oil TH	148
STRUB Molymagus Powder R	149

# STRUB Wire rope oil TH

Chain lubricant

Temperature range 180°C - max. 300°C

## DESCRIPTION

STRUB Wire rope oil TH is an environmentally friendly, biodegradable special lubricant.

## APPLICATION

STRUB Wire rope oil TH has been specially developed for the protection and lubrication of elevator wire ropes. Also for traction and carrying ropes of cable cars, chair lifts, ski lifts, etc. The elevator ropes are lubricated during the manufacturing process. STRUB Wire rope oil TH is also used for relubrication of the ropes. The quality of the rope lubricant is very important for elevator ropes, so we have formulated and tested this product accordingly. If no lubricant remains on the fingers when touching the rope, relubrication is required. As a rule, approx. 0.2 - 0.3 liters of lubricant per centimeter of wire rope diameter and 100 meters of rope are sufficient. Lubrication should be frequent, but sparing. The lubricant should be distributed over the entire rope surface. Outdoors, lubrication should be carried out only in dry weather conditions; a clean rope is a prerequisite. Lubricated elevator ropes achieve twice the service life.

**ART.-NO.**

**ARTICLE**

**PACKAGE**

30559

Wire rope oil TH

1l / 5l / 10l / 20l / 60l / 200l / 1000l

# STRUB Molymagus Powder R

Molybdenum sulfide (MoS<sub>2</sub>)

## DESCRIPTION

STRUB Molymagus Powder R is a pure molybdenum sulfide obtained from raw natural molybdenite after special purification processes. The manufacturing process ensures that the structure of the natural molybdenite is preserved. STRUB Molymagus Powder R serves as an effective dry lubricant at extreme loads and temperatures from -185°C to about + 350°C under air admission and up to 1'000°C under inert gas or vacuum.

## APPLICATION

STRUB Molymagus Powder R is used as an additive to conventional oil-, grease- and silicone-based lubricants to make them suitable for use even at high pressures and temperatures. In general, STRUB Molymagus Powder R has a decisive wear-reducing effect due to the formation of surfaces containing solid lubricants when hydrodynamic lubrication is interrupted during normal operation or in the event of oil supply malfunctions. STRUB Molymagus Powder R is an outstandingly effective component for self-lubricating materials made of metals and thermoplastics and for bonded coatings for the permanent lubrication of maintenance-free bearings. STRUB Molymagus Powder R is also suitable for all applications requiring a chemically pure molybdenum sulfide.

ART.-NO.

ARTICLE

PACKAGE

30913

Molymagus Powder R

101 / 201 / 601 / 2001



**3.085**

## MOLD RELEASE AGENT

Separate what does not belong together. For clean and high-quality surfaces during welding and casting up to 2900°C, STRUB products are ideally suited.

Due to their outstanding protective effect and economical use, you will never want to part with these products again.

STRUB Welding protection 450 K	151
STRUB Bonded coating BN White Aqua	151

# STRUB Welding protection 450 K

Biodegradable welding protection



## APPLICATION

Welding protection concentrate (release agent) for the purpose of preventing the burning of welding beads on workpieces and welding fixtures. Concentrate is mixed with water, the application concentration is 10 - 30 %. Application: With sprayer, hand sprayer or clean cloth.

## FEATURES AND ADVANTAGES

Biodegradable, water-soluble, solvent-free, low-odor, practically neutral, short-term corrosion protection. Skinfriendly. After welding, STRUB Weld Protection 450 K can be easily washed off with water. Depending on the application unit and temperature, 1 liter can be used for an area of ~ 35 - 45 m<sup>2</sup>.

ART.-NO.

ARTICLE

PACKAGE

30124

Welding protection 450 K

5l / 10l / 20l / 60l / 200l

# STRUB Bonded coating BN White Aqua

High-heat resistant bonded coating and mold release coating up to 2900°C

## DESCRIPTION

STRUB Bonded Coatings BN White Aqua is a specially developed mold release agent for high temperatures.

## APPLICATION

Apply the paint in the delivery form to the mold by brush or spray gun (use 1.4 -1.8mm nozzle recommended). After drying, a highly heat-resistant layer is formed. Stir the varnish well before use. If necessary, the varnish can be thinned with water. STRUB Bonded Coating BN White Aqua is used when stripping all types of casting molds to achieve a non-stick effect. Bearing shells and gas turbine bearings are also coated before casting at 520 °C, white metal V738. Cracking and air entrapment are thus prevented. Castings can be easily removed from the molds without leaving any residues. STRUB Bonded Coating BN White Aqua normally does not mix with the casting material and remains adherent in the mold. Suitable as an anti-adhesive splash during welding, as the bonded coating can be wiped away.

ART.-NO.

ARTICLE

PACKAGE

33311

STRUB Bonded coating BN White Aqua

250ml / 1l / 5l



# THANK YOU.



**STRUB**  
SWISS TRIBOLOGY

STRUB & Co. AG  
Swiss Tribology  
Mühlemattstrasse 5  
CH-6260 Reiden

phone +41 62 785 22 22  
fax +41 62 785 22 33  
sales@strub-lube.ch  
www.strub-lube.ch