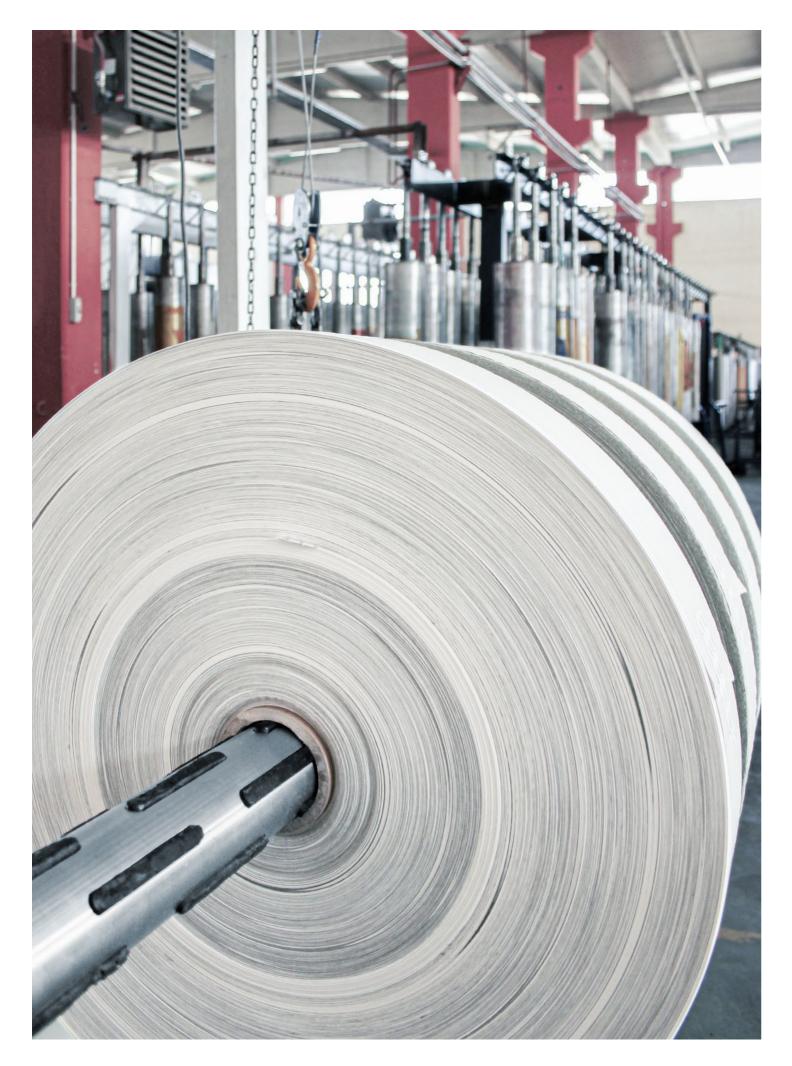


Special lubricants for the pulp and paper industry





Lubricant solutions for the pulp and paper industry

APPLICATIONS

Roller bearings



Plain bearings







Closed gears



raulic







Food grade/ Pharmaceutical technology



PROPERTIES

High loads



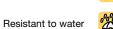
Low temperatures

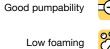


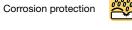
High speed



Noise damping







Compatible with plastics



Low residue level



Please inquire about special solutions for your specific application.

BECHEM - Lubrication solutions for industry

special lubricants and metalworking fluids today.

As the oldest German manufacturer of industrial lubricants, BECHEM is one of the leading producers of high-quality

BECHEM products stand out through innovative formulations

in the most diverse industrial applications – in machining and forming for metalworking processes, in coating technology and as for-life lubricants in various technical components.

A strong network of distributors and several national and international production sites ensure that BECHEM products

are readily available worldwide.

Tomorrow's technologies. Today.

All indications and values correspond to latest knowledge and do not represent any product specification

Wood treatment

In mechanical and thermal-mechanical wood treatment, machines and systems are exposed to great deals of water and are subjected to high mechanical stresses during milling and defibration. As the systems and possible production losses present major cost factors, and generally there are no redundant systems, choosing the right lubricant is essential. Using tailored BECHEM lubricants can reduce losses, maintenance costs and downtimes while meeting demands for high efficiency and system availability.

In wood treatment processes at pulp and paper plants, lubricants from the **BECHEM High-Lub FA 67 series** sat-

isfy requirements for high mechanical stability, high load bearing capacity, excellent water resistance and outstanding corrosion protection. The products surpass other conventional lubricants in terms of their capability to prevent stand-still corrosion especially and thus extend the service life of bearings filled with these greases.

Lubricants from the **BECHEM High-Lub SW 2 series** are especially effective with their water-repellent properties, allowing them to be applied to wet surfaces.



Debarking

Lubricants, such as the **BECHEM High-Lub FA series** for main bearings, were designed with outstanding product properties for the most extreme requirements in lubricating bearings of debarking drums or rotor drives. Open gear drives and loose tires can be supplied dependably with the **Berulit GA series**. Thanks to their excellent adhesion to metal surfaces without being dust-binding, they ensure low consumption rates. This also prevents them from being washed away by water.



Milling

The ball bearings in choppers, grinders and refiners are exposed to extremely high and often shock loads, as well as the effects of water. Refiners also see temperatures of up to 130 °C. Despite short relubrication intervals, bearing damage often occurs prematurely. The **BECHEM High-Lub FA 67 series** and **Berutox M 21 series** present lubricating greases with a very high mechanical stability that reliably protect the bearings from wear, corrosion and premature failure.



BECHEM lubricants stand out in terms of performance and efficiency in all areas of the paper industry.

Chemical preparation

Systems performing the boiling and bleaching processes with aggressive cooking liquors based on oxygen, sulfur or chlorine compounds have to meet especially high requirements in terms of lubricant chemical resistance. The lubricants used must not embrittle, harden or be prone to heavy oxidation when coming into contact with aggressive chemicals. These properties are necessary to prevent premature bearing failures. The heavy weight of the boiling chamber and tanks, low speed and vertical arrangement of many bearings also place high demands on lubricating film strength, wear protection and mechanical stability.

Polyurea-based lubricants from the **Berutox M 21** and **Berutox FH 28 series** as well as PTFE-based lubricants from the **Berutox VPT series** and **Berutemp 500 T2** have proven their superiority to competitor products in bearings of many paper plants in terms of mechanical, thermal and chemical resistance.

Bearings on washers, dewatering presses and systems for processing recycled paper are often exposed to the strong influences of water or water vapor. Lubricating greases from the **BECHEM High-Lub FA series** ensure reliable protection with minimum consumption.

The **Berulub OX series** features nationally certified lubricants for oxygen-carrying fittings.

For efficient operation of closed gears, BECHEM offers various mineral oil-based and synthetic oil-based gear oils with different performance characteristics.

Paper machine

only acceptable for planned maintenance and repair work. section and the press section. This is why maximum operating reliability hinges not only on component design, but also on choosing the right lubri- The dry end places strict thermal and oxidative resistance cant.

bearing and prevent water penetration. Studies have shown that a lubricant water content above 200 ppm drastically reduces the service life of roller bearings. Corrosion in the bearing has a similar negative effect. This is why lubricants must ensure excellent corrosion protection. Lubricating greases from the BECHEM High-Lub FA 67 Special tailored lubricant solutions are available for oil series and Berutox M 21 series meet these demands

Paper machines are in operation non-stop. Downtime is and are ideal for bearings in the headbox, the wire

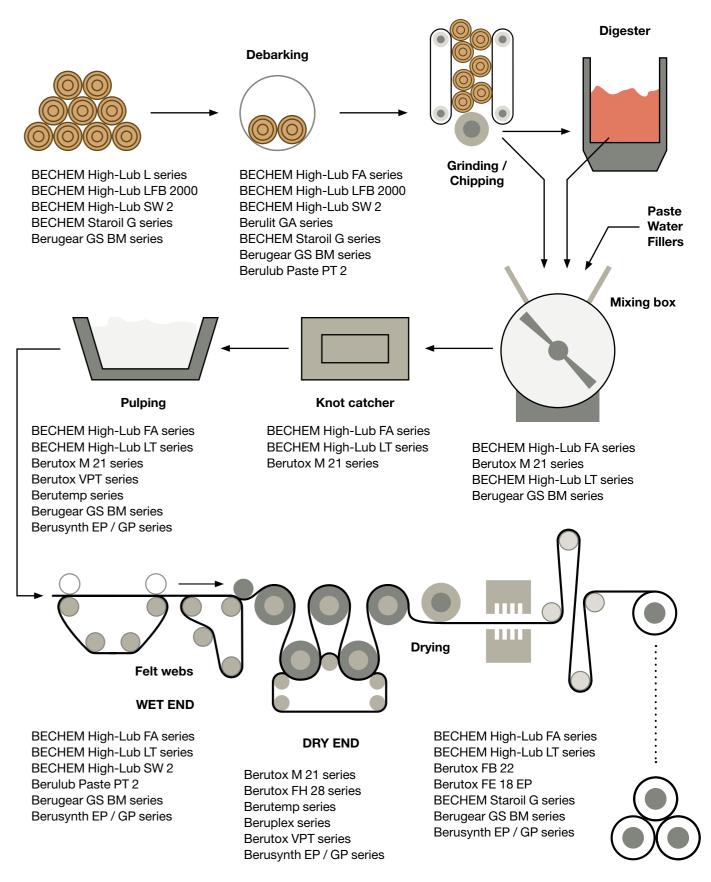
requirements on the lubricants. In addition, the operating speeds of bearings are much higher in the dry end and At the wet end, the lubricating grease has to help seal the reel section. Various greases from the Beruplex and Berutox series are used for different bearing dimensions and operating conditions, such as bearing load, operating speeds and temperatures. BECHEM application engineers would be happy to provide you with consultation.

circulation systems, chain drives and rotary joints.



BECHEM lubricants are used in paper production for maximum operating reliability.

Example applications for BECHEM lubricants



Roll paper

Paper finishing

Surface treatment

Lubricating greases from the Beruplex and Berutox series Synthetic lubricating grease Berutox FB 22 is also used to are used in the bearings of size presses and calendars.

Berutox FB 22 has proven effective in high-speed roller bearings of guide rollers. The lubricating grease ensures high mechanical stability, low oil separation, low friction values and clean rolling of the rolling elements, even at very high speeds.

Packaging

lubricate roller bearings in slitting and sheeting machines, as it does not escape from the bearings or tend towards higher oil separations, even at high speeds.

Oiling the cutting edge with Berusynth 15 H1 can extend the service life of roller cutters significantly. This colorless lubricating oil reduces wear and prevents excessive paper fiber adhesion.

Special papers

Food-grade lubricants with H1 or H2 registration should be used for processing papers that are later used for food packaging, cigarettes or hygiene products. Lubricating greases from the Berulub FG-H series meet the relevant machine and system requirements. For bearings with oil lubrication, chain drives and other mechanisms, the Berusynth H1 series of fully synthetic multi-functional oils is available in many viscosity classes.



BECHEM lubricants meet the requirements for producing hygiene products.

Paper rolls are reliably cut to the desired width with the help of BECHEM lubricants.

Corrugated board

Owing to internal heating of the corrugated rolls in corrugated board plants and the resulting high operating temperatures, the lubricants have to meet very high requirements in terms of their thermal aging resistance. As forming the corrugations results in strong vibrations, the lubricating greases must also feature excellent mechanical stability as well as very low oil separation.

For these operating conditions, PFPE greases of the Berutox VPT series or Berutemp 500 T2 are recommended. In bearings of corrugated rolls with low operating temperatures, **Berutox** FH 28 KN can also be used.

FE 18 EP have proven themselves in

The Beruplex LI-EP 2 and Berutox ings. Application of Berusynth 15 H1 can reduce wear on the cutting edges application for lubricating fan bear- of the slitting machines significantly.



BECHEM lubricants were designed for the extreme thermal conditions of corrugated board production.

Lubricating greases

For bearings in pumps and water treatment systems, lubricating greases from the **BECHEM High-Lub FA series** and **BECHEM High-Lub SW 2** offer excellent water resistance and outstanding corrosion protection.

Lubricating greases from the **Beruplex** and **Berutox series** are ideal for lubricating bearings of fans in the soda house or recirculation fans that are exposed to extreme thermal stress.

Depending on the operating temperature, **BECHEM High-Lub LT 2 EP, Berutox FE 18 EP** or **Berutox FB 22**are recommended for bearing lubrication and electric motors.



PRODUCT	Rase oil	Trickenet	NLG1-9f	ade Kinanatic	vicosity at many victorial	sil process Applications	Description
BECHEM Premium ²	Mineral oil	Lithium-Calcium-Soap	2*	90-110 10-13	-30 +130	Multipurpose grease	Long-term lubrication grease for high loads, excellent corrosion and wear protection, extends relubrication intervals
BECHEM High-Lub LT 2 EP	Mineral oil	Lithium soap	2	180 15	-30 +140	Multipurpose grease	Multi-purpose EP-grease, wide application temperature range, excellent water resistance, excellent corrosion and wear protection, excellent pumpability in central lubrication systems
BECHEM High-Lub FA 67-2 ⊕ 🍄 🍄 \ominus	Mineral oil	Lithium-Calcium-Soap	2	100 11	-30 +130	Electric motors and fan bearings	Long-term lubricating grease, excellent corrosion and wear protection, suitable for high loads and high speeds, excellent water resistance and pumpability
BECHEM High-Lub LFB 2000 ⊕ ○ Î ••	Mineral oil	Lithium soap	2	180 15	-20 +140	Wood shredders, wood grinders, bark shredders	EP-grease, wide application temperature range, excellent pumpability and water resistance, excellent corrosion and wear protection, contains light-colored solid lubricants, emergency running properties
BECHEM High-Lub LT 2 EP-400	Mineral oil	Lithium soap	2	430 27	-20 +140	Wood shredders, wood grinders, bark shredders	Heavy-duty grease, extensive application temperature range, excellent water resistance, excellent corrosion protection, excellent pumpability, increased base oil viscosity, EP-properties
BECHEM High-Lub FA 67-400 KS	Mineral oil	Lithium-Calcium-Soap	2	400 30	-20 +140	Wood shredders, wood grinders, bark shredders, pulpers, wet end of the paper machine	Long-term lubricating grease, good sealing qualities, excellent water resistance, outstanding corrosion protection, good pumpability in central lubrication systems, EP-properties
BECHEM High-Lub FA 50	Mineral oil	Lithium-Calcium-Soap	2	920 42	-20 +120	Main bearing for cellulose and dewatering presses, support roller bearings	Long-term lubrication grease for high to very high loads, excellent water resistance, excellent corrosion protection, contains highly-viscous mineral base oil and EP-additives
BECHEM High-Lub FA 50 MO	Mineral oil	Lithium-Calcium-Soap	2	1200 47	-20 +120	Support roller bearings, main bearings of bark presses and dewatering presses	Long-term lubricating grease for high to very high loads, excellent water resistance, excellent corrosion protection, even if there is risk of standstill corrosion, highly viscous mineral oil, contains solid lubricants and EP-additives
BECHEM High-Lub SW 2	Mineral oil	Special calcium soap	1-2	100 9	-25 +80	Roller bearings & guides for wood treatment & paper recycling under strong water influence	Corrosion protection grease for roller bearings, plain bearings, and ropes, for aggressive ambient conditions, extremely high level wear protection through EP additives, water-resistant, excellent corrosion protection, excellent pumpability
Beruplex LI-EP 2	Mineral oil	Lithium complex soap	2	180 6	-30 +150	Roller bearings and plain bearings in the dry end of the paper machine	Long-term EP-grease, excellent corrosion and wear protection, excellent pumpability, even under shock load, protection against high temperatures and moisture, e.g. for wheel bearings, electric motor bearings
Beruplex LI-EP 3 ²⁾	Mineral oil	Lithium complex soap	3	180 6	-30 +150	Roller bearings and plain bearings in the dry end of the paper machine	Long-term EP-grease, excellent corrosion and wear protection, excellent pumpability, even under shock load, protection against high temperatures and moisture, e.g. for wheel bearings, electric motor bearings
Beruplex HTA	Mineral oil	Aluminum complex soap	2	230 15	-25 +190 +200	Roller bearings and plain bearings in the dry end of the paper machine	High-temperature grease with a wide application temperature range, good corrosion protection, excellent pumpability in central lubrication systems, for dusty environments
Berutox FE 18 EP ③ 🍄 •••• 🗓 ⊙ 🐯	Mineral oil	Polyurea	2	100 11	-20 +140	Electric motors and fan bearings	High-performance grease to lubricate high-speed roller and plain bearings, excellent water resistance, excellent corrosion and wear protection, excellent pumpability
Berutox M 21 KN	Mineral oil	Polyurea	1-2	490 32	-20 +180	Roller bearings and plain bearings in the dry end of the paper machine, fan bearings	Long-term lubricating grease, outstanding consistency-temperature-behavior, excellent resistance to water, excellent corrosion and wear protection, EP-properties

All indications and values correspond to latest knowledge and do not represent any product specification.

Value marked in grey indicates short term maximum temperature.

Not available worldwide. Please inquire about country-specific special solutions.

*Also available in other consistency classes.

Lubricating greases

A number of different lubricating greases are used in the chemical recovery process. When it comes to lubricating open drives and the seals of line kilns, adhesive lubricants of the **Berulit GA series** stand out thanks to their excellent wear protection and low consumption rates. **The Berulit GA series** is also recommended for lubricating gear racks, e.g. of the soot blower in the soda house.

BECHEM High-Lub FA 67-400 KS ensures the reliable supply of grease-lubricated bearings in the supporting rollers and pinions of lime kilns with relubrication intervals of several months.

For lubricating floating races on lime kilns, **Berulub VPN 13 Ringlub** presents a semi-liquid high-temperature lubricant that only has to be applied every two to four weeks thanks to its high solid content. The synthetic carrier fluid prevents strong smoke development or fires, even when applied to very hot kiln surfaces.



	PRODUCT					çoğ	ityat maysi),	etature dications	
		Base oil	Thickener	MEI-gr	ade kinemi	atic visco	Mork	king temp	Process Applications	Description
	Berutox M 21 EPK	Mineral oil	Polyurea	1-2	490	32	-20 -		Roller bearings and plain bearings in the wet and dry ends of the paper machine	Multi-purpose greas good adhesion, resi
מ מ מ	BECHEM Ceritol PSA 12 H ⊕ ○	Mineral oil	Special polyurea	1-2	240	17	-20 -	+160	Roller bearings and plain bearings in the dry end of the paper machine, fan bearings	High-temperature g of thermal radiation
	Berutox MB 2-H	Mineral oil	Polyurea	2	300	18		+200 +220	Main bearings of refiners, bleachers and stirring boilers	Long-term lubricatir reliable corrosion pr
	Berutox FB 22	Polyalpha- olefin (PAO)	Barium complex soap	2	50	8		+180 +200	Electric motor bearings and fan bearings, bearings of guide rollers and slitting machines	For long-term lubric excellent water resis
	Berutox FH 28 KN	Polyalpha- olefin (PAO)	Polyurea	1-2	400	40	-30 -	+180 +200	Roller and plain bearings in the dry end of the paper machine, on drying units and corrugated board plants	Synthetic long-term excellent chemical a EP-properties
	Berutox FH 28 EPK 2	Polyalpha- olefin (PAO)	Polyurea	2	400	40	-30 -	+180	Roller bearings and plain bearings in the dry end of the paper machine and on drying units	Long-term lubricating overheating, excelle EP-properties
	Berutox VPT 54	Perfluor- polyether (PFPE)	Polytetrafluoroethylene (PTFE)	1-2	210	20	-30 -	+230	Roller bearings and slide bearings on drying ovens, bleachers and corrugated board plants	Longlife lubricating all sliding speeds pedecomposition, exc
	Berutemp 500 T2	Perfluor- polyether (PFPE)	Polytetrafluoroethylene (PTFE)	1-2	510	45	-20 -	+260	Roller bearings and slide bearings on drying ovens, bleachers and corrugated board plants	Long-term lubricating chemicals, outstand corrosion protection
	Berulub FG-H 2 SL	Synthetic hydrocarbon	Special calcium complex soap	2	50	8	-45 -	+160 +200	Roller bearings and plain bearings in the finishing of paper that can later come into contact with foodstuffs	High-performance I and aging, reliable or registered, Halal and
	Berulub FG-H 2 EP	Polyalpha- olefin (PAO)	Special calcium complex soap	1-2	150	18	-40 -	+160	Roller bearings and plain bearings in the finishing of paper that can later come into contact with foodstuffs	Universal lubricant, h corrosion protection registered, halal and
	Berulit GA 400 → 2500	Mineral oil/ Synthetic oil	Aluminum complex soap	0-00 00	490 2500	32 100	-20 - +5 -	+180 +200	Open gear drives of debarking and drying drums, lime kilns, pulpers, inlet seals of rotary kilns	Operating lubricant protection, extreme preferably applied b
	Berulit GA 800 → 2500 Fluid	Mineral oil/ Synthetic oil	Aluminum complex soap	000*	1000 3175	45 113		+120 +200	Open gear drives of debarking and drying drums, lime kilns, pulpers	Operating lubricant protection, very high for dip baths or circ
	Berugear HV 10 → HV 20	Mineral oil/ Synthetic oil	-	-	10000 18500	320 550	0 - +10 -	+120 +140	Open gear drives of debarking and drying drums, lime kilns, pulpers	High-performance f closed gear units, e adhesion

Multi-purpose grease for plastic/metal slide pairings, high corrosion and wear protection, good adhesion, resistant to oxidation, water, and steam, water repellent, EP-properties

High-temperature grease, no pipe clogging in central lubrication systems even in case of thermal radiation, excellent sealing qualities, good corrosion and wear protection

Long-term lubricating grease with outstanding sealing capacities, good wear protection, reliable corrosion protection even in presence of aggressive water

For long-term lubrication at high speeds, good consistency-temperature-behavior, excellent water resistance, excellent corrosion and wear protection, good pumpability

Synthetic long-term lubricating grease, outstanding consistency-temperature behavior, excellent chemical and water resistance, excellent corrosion and wear protection,

ong-term lubricating grease, outstanding consistency-temperature behavior even at everheating, excellent resistance to water, excellent corrosion and wear protection,

Longlife lubricating grease to reduce friction and wear at high temperatures, suitable for all sliding speeds permitted for grease lubrication, resistant to thermal and chemical decomposition, excellent oxidation resistance and plastic compatibility

Long-term lubricating grease, even for vacuum, radiation, solvents and aggressive chemicals, outstanding compatibility with plastics, high thermal stability, high wear and corrosion protection, resistant to acids, bases, disinfectants

High-performance lubricant, good adhesion and sealing properties, resistant to water and aging, reliable corrosion protection, suitable for central lubrication systems, H1 registered, Halal and Kosher certified, certified according to ISO 21469

Universal lubricant, high load-carrying properties, good adhesion and sealing effect, reliable corrosion protection and wear, resistant to ageing, water, disinfectants and cleaners, H1 egistered, halal and kosher certified, certified according to ISO 21469, available in aerosols

Operating lubricant for open gear drives, extremely high base oil viscosity, excellent wear rotection, extremely high load-carrying capacity, good adhesion, contains graphite, referably applied by spray equipment, Berulit GA 2500 also available in aerosols

Operating lubricant for open gear drives, increased base oil viscosity, excellent wear protection, very high load-carrying capacity, strong adhesion, contains graphite, suitable for dip baths or circulating systems, sprayable

High-performance fluid with extremely high base oil viscosity for open and slow-running closed gear units, excellent wear protection, very high load-carrying capacity, excellent adhesion

All indications and values correspond to latest knowledge and do not represent any product specification.

Value marked in grev indicates short term maximum temperature. *Value indicates unworked penetration.

Lubricating oils

Compared with mineral-oil-based gear and circulating oils, synthetic lubricating oils from the **Berusynth GP** and **Berusynth EP series** offer better aging resistance and thus extend oil change intervals, even at high operating temperatures. Thanks to lower friction values, it is also possible to reduce oil sump temperatures and losses in closed gears.

The **Berugear GS BM** series was developed for use in high-load gears with previous damage. Owing to special high-performance additives, the lubricating oils are capable of bonding highly effective reaction layers with a very high pressure capacity on the contact surfaces, enabling micro-plastic deformation of upper surface layers. The coefficient of friction in the contact area is also reduced.

For temperature-stressed chains in the dry end of paper machines and drying units, **Berusynth CU 250** presents a special synthetic chain oil with a low evaporation rate and low residue formation.



	PRODUCT	Base oil	Visco	sity (mm² s)	aty index pour	point (°C)	point (°C)	Who who	Process Applications	Description		
Lubricating oils	BECHEM Staroil NR 10 → 68	Mineral oil	10 to +68	95	-30 to -24	≥ 150		HLP	Hydraulic equipment	Hydraulic oil with high thermal stability and resistance to oxidation, excellent protection against wear and corrosion, excellent air and water separation capacity as well as outstanding viscosity/temperature behavior, free of zinc		
	BECHEM Staroil LV 46 → 150	Mineral oil	46 to 150	95 to 105	-9 to -7	≥ 230 to ≥ 240	DIN 51506	VDL	Compressors	Additive containing compressor oil with high oxidation and temperature resistance, good protection against corrosion, low formation of residues, water repellent, good adhesion, considerably exceeds the requirements of VCL/VBL oils		
	BECHEM Staroil G 100 → 680	Mineral oil	100 to 680	95 to 100	-33 to -18	≥ 230 to ≥ 270	DIN 51517-3	CLP	Gear units in the normal temperature range	High-performance gear oil for spur, bevel, planetary and worm gears, excellent wear protection, very high ageing resistance, good load-carrying capacity and viscosity/temperature behavior, excellent water and air separation capacity		
	BECHEM Staroil SMO 68 →1500 Î Ø ۞ ○	Mineral oil	+68 to 1350	90 to 100	-33 to -9	≥ 210 to ≥ 250	DIN 51517-3	CLPF	Gear units with increased wear protection requirements	High-performance gear oils for heavy-duty gear units with high contact pressure or shock loads, good load-carrying capacity, excellent wear protection, good viscosity-temperature behavior, very high ageing resistance, excellent water and air separation capacity		
	Berugear GS 68 → 680 BM	Mineral oil	+68 to 738	92 to 100	-30 to -15	≥ 210 to ≥ 290	DIN 51517-3	CLP	Gear units with increased require- ments relative to wear protection and minimal power loss	High-performance oil for heavy-duty gears, contains PD-additives, excellent wear protection, very high resistance to micropitting, forms reactive surface layer that supports plastic deformation and thus increases the contact area, highly effective on gears with high percentages of sliding friction		
	Berusynth GP 68 → 1000	Polyalpha- olefin (PAO)	67 to 1007	145 to 165	-60 to -27		DIN 51517-3	CLP HC	Gear units with higher oil sump tem- peratures or higher requirements rela- tive to extended oil change intervals	High-performance gear oil on polyalphaolefin basis for heavy-duty spur, bevel, planetary and worm gear units, allows extended oil changing intervals, excellent wear protection, very high ageing resistance, miscible with mineral oil		
	Berusynth EP 68 → 1000	Polyglycol	+68 to 1000	196 to 278	-42 to -30		DIN 51517-3	CLP PG	Gear units with higher oil sump tem- peratures or higher requirements rela- tive to extended oil change intervals	High-performance gear oil on polyglycol basis for heavy-duty spur, bevel, planetary and worm gears, allows extended oil changing intervals, excellent wear protection, very high ageing resistance, reduces tooth friction losses in the gear unit		
	Berusynth CU 250	Ester	250	120	-45	≥ 250	H2		Drive chains in the dry end of the paper machine and on drying units	High-temperature chain oil, wide application temperature range, excellent wetting and creeping properties, hot and cold water resistant, good corrosion protection, no formation of critical residues, H2-registered, adjusted to Berusynth CC 100, also available in aerosols		
	Berufluid WO	Medical white oil	17	98	-10	≥ 170	H1	AN	Cutters and mechanisms for which the paper can later come into con- tact with foodstuffs	Medical white oil, odorless and tasteless, water repellent, excellent corrosion protection, removes contamination, high creeping capacity, resin-free and acid free, medically pure		
	Berusynth 15 H1 → 1000 H1	Polyalpha- olefin (PAO)	15 to 1000	125 to 165	-65 to -35		H1, Halal, Kosher	HLP HC, CLP HC, HVLP HC, VDL HC	Multi-purpose oil for reduced ranges, also for higher temperatures and extended oil changing intervals	High-performance oil for circulation lubrication, transport chains, hydraulic equipment, gear units, blowers, air compressors, effective corrosion and wear protection, neutral to conventional seals and paints, good load-carrying capacity, certified according to ISO 21469		
Special applications	Berulub VPN 13 Ringlub	Synthetic oil	ap- prox. 140	-		≥ 300	-	ANPFE	Floating tires of rotary kilns	High-temperature fluid, sprayable, excellent wear protection, very high ignition temperature, low smoke development on hot surfaces		
	Berusynth H1 Spray	Polyalpha- olefin (PAO)	100	140	-50	-	H1, Halal		Multi-purpose spray for the production of paper that later can come into contact with foodstuffs	Transparent chain oil/adhesive oil, good corrosion and wear protection, high load-carrying capacity, solvent free		
	Beruclean ECO					≥ 65	H1, Halal, Kosher		Cold cleaning agent for the production of paper that later can come into contact with foodstuffs	Universal cold cleaner, free of aromatic hydrocarbons, virtually odorless, strong dissolution effect, good cleaning effect, quickly biodegradable according to OECD 301 F, A7		

809921/2103/165815. Trademarks and certificate designations are protected by the copyright law even if TM or ® symbols a

Lubrication solutions for industry

