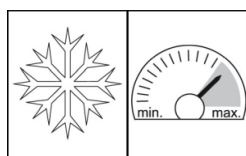
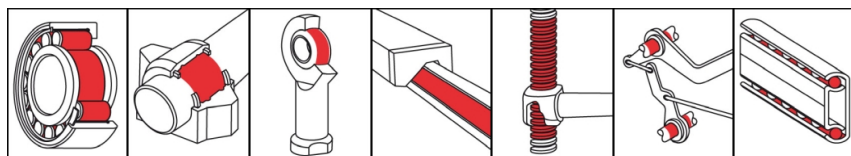


## OKS 416

### Low-Temperature and High-Speed Grease



#### Description

OKS 416 is a low temperature and high speed grease.

#### Applications

- For lubrication points of all kinds as slide ways, spindles, geared parts of the electronic, precision engineering and optical equipment, temporarily or permanently exposed to extreme low temperatures like in arctic climates or cold storages
- Roller bearing lubrication of high-speed bearings, e.g. spindle bearings, miniature or precision bearings in machine-tools or textile machines, measuring equipment, electric motors of control technology and precision mechanics

#### Branches

- Iron and steel industry
- Glass and foundry industry
- Logistics
- Shipbuilding and marine technology
- Rail vehicle technology
- Chemical industry
- Paper and packaging industry
- Rubber and plastic processing
- Municipal services
- Plant and machine (tool) engineering

#### Application tips

For best results clean the lubrication point with OKS 2610/OKS 2611 Universal Cleaner. Remove the corrosion protection media before initial filling. Fill the bearings in a way that all the functional surfaces are lubricated sufficiently. Slow moving bearings (DN-value < 50,000) should be filled completely. Fast running bearings (DN-value >400,000) should be filled to 1/4, normal moving bearings to 1/3 of the free inner housing space. Observe the instructions of the bearing or machine manufacturer. Relubrication with a grease gun on to the grease nipples or with an automatic lubrication system. Relubrication intervals and amount to be defined acc. to the service conditions. If the removal of the old grease is not possible the amount of grease has to be limited to avoid excess lubrication of the bearing. For longer relubrication intervals, a complete exchange of the old grease is recommended. Mix with appropriate lubricants only.

#### Advantages and benefits

- Dynamic light noise proofed long-term lubrication grease
- Best use at arctic conditions and very high speed
- High efficiency through optimal formulation
- Multifunctional application beside the regular range of performance for greases
- Efficient through economical application
- No nameable change of consistency at low temperatures or high speeds and accordingly temperatures
- Oxidation stable and resistant against cold and hot water

# OKS 416

## Low-Temperature and High-Speed Grease

### Packaging

- 400 ml Cartridge
- 1 kg Can
- 5 kg Hobbock

### Technical data

	Standard	Conditions	Unit	Value
<b>Main components</b>				
base oil				mineral oil
base oil				ester
thickener				lithium soap
<b>Application related technical data</b>				
marking	DIN 51 502	DIN 51 825		KPE2K-50
Viscosity base oil	DIN 51 562-1	at 40°C	mm <sup>2</sup> /s	15
Viscosity base oil	DIN 51 562-1	at 100°C	mm <sup>2</sup> /s	4
drop point	DIN ISO 2176		°C	> 190
consistency	DIN 51 818	DIN ISO 2137	NLGI grade	2
worked penetration	DIN ISO 2137	60DH	0.1 mm	265-295
oil separation	DIN 51 817	168h/40°C	percent in weight	< 6.0
lower operating temperature	DIN 51 805	≤ 1,400 hPa	°C	-50
upper operating temperature	DIN 51 821-2	F50 (A/1500/6000), 100h	°C	120
colour				yellow
density	DIN EN ISO 3838	at 20°C	g/cm <sup>3</sup>	0.88
water resistance	DIN 51 807-1	3h/90°C	Degree	1-90
DN value (dm x n)			mm/min	1,000,000
four-ball test rig welding load	DIN 51 350-4		N	2,400
SKF-EMCOR	DIN 51 802	7 days, distilled water	corr. degree	0-1
SKF-EMCOR Copper	DIN 51 811	24h, 100°C	corr. degree	1
<b>Product specific technical data</b>				
biodegradability	CEC-L-33-A94	21 days	%	> 70

**Klüber Lubrication München GmbH & Co. KG**  
Geisenhausenerstraße 7 / 81379 München /  
Germany / phone +49 89 7876-0

The data in this document is based on our general experience and knowledge at the time of publication and is intended to give information of possible applications to a reader with technical experience. It constitutes neither an assurance of product properties nor does it release the user from the obligation of performing preliminary field tests with the product selected for a specific application. All data are guide values which depend on the lubricant's composition, the intended use and the application method. The technical values of lubricants change depending on the mechanical, dynamical, chemical and thermal loads, time and pressure. These changes may affect the function of a component. We recommend contacting us to discuss your specific application. If possible we will be pleased to provide a sample for testing on request. Klüber products are continually improved. Therefore, Klüber Lubrication reserves the right to change all the technical data in this document at any time without notice.