



HIGH-LUB LFB 2000

จารบีประสิทธิภาพสูงสำหรับ

แบริ่งมิด

ในอุตสาหกรรมน้ำตาล



C.T.L.INTERLUBE CO.,LTD

1497 moo.13 Bigland Factory T.Klong nueng A.Klong Luang 12120

Tel:9081587-8,9082043-4Fax:9082085

<http://www.ctlinterlube.com> e-mail:suwin@ctlinterlube.com

Technical product information

HIGH-LUB LFB 2000

Multipurpose EP grease with emergency run properties



9004751

Rev. 01_27.11.03

Description

To lubricate plain and roller bearings and, to reduce friction and wear on mechanisms subjected to high load. For all industrial sectors. Water that has been absorbed by the grease will neither affect its consistency nor corrosion protection properties. In addition to its excellent ageing resistance and load carrying capacity, HIGH-LUB LFB 2000 has good adhesion and is resistant to hot and cold water. White solid lubricants in the grease prevent the metal-to-metal-contact in the area of mixed and boundary friction. This helps reduce the coefficient of friction even at high surface pressure and results in less wear. Its high lubricating effectiveness helps prolong relubrication intervals. HIGH-LUB LFB 2000 is lead-free.

Examples of application

To lubricate plain and roller bearings, guideways and other machine parts such as used in constructional machinery, machine-tools, paper mills or in the stoneware and textile industry, household and washing machines, electrical and precision instruments, threaded spindles.

properties:

- universal grease for building and industrial sectors
- service temperature - 20°C up to + 120°C
- reliable corrosion protection
- wear protection
- water absorption will not affect consistency
- contains light-coloured solid lubricants

Thickener		Li/Ca soap	
Worked penetration	1/10 mm	265 - 295	DIN ISO 2137
Drop point	°C	> 170	IP 396
Base oil		mineral oil	
Kin. viscosity at 40°C	mm ² /s	approx. 180	DIN 51 562
Kin. viscosity at 100°C	mm ² /s	approx. 13	DIN 51 562

Characteristic data

- NLGI grade 2
- Poss. denomination acc. DIN 51 502:
KPF 2 K - 20
- Speed index: (k₀ x n x d_m) :
400 000

The above data correspond to latest technology, modifications reserved. This information is intended as a guide and does not necessarily represent a marketing specification. In individual cases tests have to be carried out by the consumer. Further data upon request.

Bond coating
และจารบีประสิทธิภาพสูง
สำหรับ Block coupling
ในอุตสาหกรรมน้ำตาล



OKS 536
BOND COATING



HIGH-LUB FA 50 MO

หรือ

**BERULUB MEISSEL
COMPOUND**

C.T.L.INTERLUBE CO.,LTD

1497 moo.13 Bigland Factory T.Klong nueng A.Klong Luang 12120

Tel:9081587-8 Fax:9082085

<http://www.ctlinterlube.com> e-mail:suwin@ctlinterlube.com



OKS 536

Graphite Bonded Coating, water-based, air-drying

Main advantages and benefits

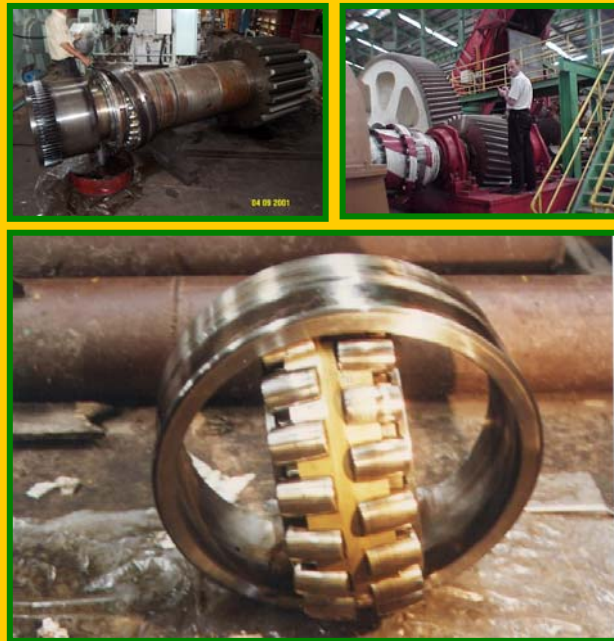
High-temperature and pressure-proof dry lubricant film for temperatures where oil and grease lubrication is not feasible. Can be sprayed onto hot surfaces. Particularly economical as dilutable with water up to a ratio 1:5 maximum.

Additional Information	released by the LGA Nuremberg	
Colour/Main Components	black/ graphite, additives,water	
Temperature Range (°C/°F)	**temp. range of solid lubricants)	-35°C to +600°C** -31°F to+1112°F**
Density	[g\cm ²]	1.10
Flash- point	(°C/°F)	none
Application	Drying/ Curing	Sliding surfaces have to be clean and degreased. Drying time acc. to layer thickne appr.30min at+20°C/+68°F,accele ration wit increasing temperature
Economy	[m ² /kg] resp. [m ² /Aerosol]	20 to 40
Frictional Behaviour	Press-Fit-Test	μ = 0.01 no chatter Friction value of thread μ =0
Packaging	canisters of 5 kg	canisters of 25 kg



HIGH-LUB FA 50 MO

จารบีประสิทธิภาพสูงสำหรับ
แบริ่งโอเพ่นเกียร์ (Open gear bearing)
ในอุตสาหกรรมน้ำตาล



C.T.L.INTERLUBE CO.,LTD

1497 moo.13 Bigland Factory T.Klong nueng A.Klong Luang 12120

Tel:9081587-8 Fax:9082085

<http://www.ctlinterlube.com> e-mail:suwin@ctlinterlube.com

Technical data sheet

HIGH-LUB FA 50 MO

High performance EP grease



9003971

07/02

Description
To lubricate large roller and plain bearings subjected to high and severely high load Very beneficial to low speed bearings operating under shock load conditions To reduce friction and wear at bearings operating under mixed friction conditions To protect bearings from environmental influences also in the presence of water
Application examples
Roller and plain bearings in the heavy industry, mining and construction Main roller bearings and rocker arm bearings of vertical roller mills and roller presses Bearings of slew rings, crushers, shaking screens Guide pads of large drive shaft joints

Properties:

- Operation temperature
-20 °C to +120 °C
- Contains EP additives and solid lubricants to ensure emergency run characteristics
- Excellent wear protection
- Very good corrosion protection
- High worked stability even if mixed up with water

Thickener		Li/Ca	
Worked penetration	1/10 mm	280 ±15	DIN ISO 2137
Worked penetration difference after 10 ⁵ DS	1/10 mm	appr. 30	
VKA-weld load	N	≥ 3000	DIN 51 350
Drop point	°C	≥ 180	IP 396
EMCOR-corrosion test		0 / 0	DIN 51 802
Water resistance		1 – 90	DIN 51807
Solid lubricant		MoS ₂ Graphite	
Content	%	appr. 3	
Base oil		mineral	
Kin. viscosity at 40°C	mm ² / s	appr. 1020	DIN 51 562
Kin. viscosity at 100°C	mm ² / s	appr. 58	DIN 51 562

Characteristic data

- NLGI-grade 2
- Designation according DIN 51 502:
KPF 2 K – 20
- Speed factor (k_s x n x d_m):
100 000

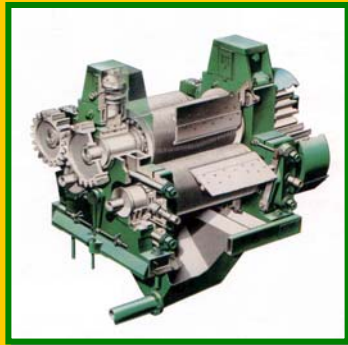
Angaben entsprechen dem derzeitigen Stand der Technik, Änderungen vorbehalten. Die Angaben bedeuten keine Eigenschaftszusicherung für den Einzelfall und entbinden den Verbraucher nicht von eigenen Prüfungen. Weitere Daten auf Anfrage.

HIGH-LUB FA 113

จารบีประสิทธิภาพสูงสำหรับ

แบริ่งลูกเห็บ

ในอุตสาหกรรมน้ำตาล



C.T.L.INTERLUBE CO.,LTD

1147 moo.13 Bigland Factory T.Klong nueng A.Klong Luang 12120

Tel:9081587-8Fax:9082085

<http://www.ctlinterlube.com> e-mail:suwin@ctlinterlube.com



HIGH-LUB FA 113

06/00/06

**Journal bearing and
Open gear lubricant**

page 1 of 1

Description

To lubricate large journal bearings and open gears subjected to high and severely high load. Suitable for bath lubrication or circulation systems.

Service temperature range: up to + 200°C
Consistency according to DIN 51818 NLGI grade 000

To reduce friction and wear on slow moving mechanisms subjected to mixed friction and very high and/or shock loads. HIGH-LUB FA 113 offers excellent corrosion protection also in the presence of water.

Benefits

HIGH-LUB FA 113 is equipped with special EP additives and a selection of solid lubricants which enable the product to withstand high loads at low and medium circumferential speeds. HIGH-LUB FA 113 is specifically designed to be applied by bath lubrication or circulation systems.

Characteristic data

Colour		black	
Thickener		Al complex soap	
Worked penetration	0,1 mm	approx. 500	DIN ISO 2137
Content of solids	%	approx. 10	
EMCOR corrosion test		0/0	DIN 51 802
Copper corrosion test		1	DIN 51 811
TIMKEN test			
load	lbs	50	SEB 181 302
wear	mg	< 5	
Four Ball Test			DIN 51 350 P. 4
O.K. load	N	7500	
FZG test A/2,76/50			DIN 51 354
Damage load stage		> 12	
Specific wear	mg/kWh	< 0,2	

Base oil

Kin. viscosity 40°C	mm ² /s	approx. 2500	DIN 51 562
Kin. viscosity 100°C	mm ² /s	approx. 108	DIN 51 562
Flash point	°C	> 280	DIN ISO 2592

This information is intended as a guide and does not necessarily represent a marketing specification. Data may vary within modest ranges but do not adversely affect the lubricant quality. Modifications reserved.

น้ำมันเกียร์ประสิทธิภาพสูงสำหรับ
Low speed gear
ในอุตสาหกรรมน้ำตาล



BERUGEAR G 5000

C.T.L.INTERLUBE CO.,LTD

1497 moo.13 Bigland Factory T.Klong nueng A.Klong Luang 12120

Tel:9081587-8Fax:9082085

<http://www.ctlinterlube.com> e-mail:suwin@ctlinterlube.com

Technical data sheet

BERUGEAR G 5000

High performance EP gear oil



9560002
07.01

Description
High performance EP gear oil with a very high base oil viscosity for large, heavy loaded slow turning industrial gear boxes The special additives inside the oil form, due to a physical and chemical reaction, a very strong protection layer on the flanks and offer thus a reduced coefficient of friction and a sufficient strong lubricating film even under the conditions of very low speed For gear boxes where standard gear oils do not provide sufficient load carrying capacity
Application examples
Large slow turning gears in the sugar and mining industry

Properties:

- Operation temperature 0°C to +140 °C
- Extreme high load carrying capacity
- Excellent wear protection
- Very good corrosion protection
- Good anti-ageing characteristics

Base oil		Min/Syn	
Kin. Viscosity at 40°C	mm ² /s	appr. 4800	DIN 51 562
Kin. Viscosity at 100°C	mm ² /s	appr. 180	DIN 51 562
Viscosity index		130	
Flash point	°C	> 240	DIN ISO 2592
Pourpoint	°C	appr. -10	DIN ISO 3016
FZG Test A/16/90			
Damage load stage		> 12	DIN 51 354
Specific wear	mg/kWh	< 0,3	
Four ball test			
Weld load	N	2800	DIN 51 350
Carlote wear			
1 min 1000 N	mm	0,3	

Characteristic data

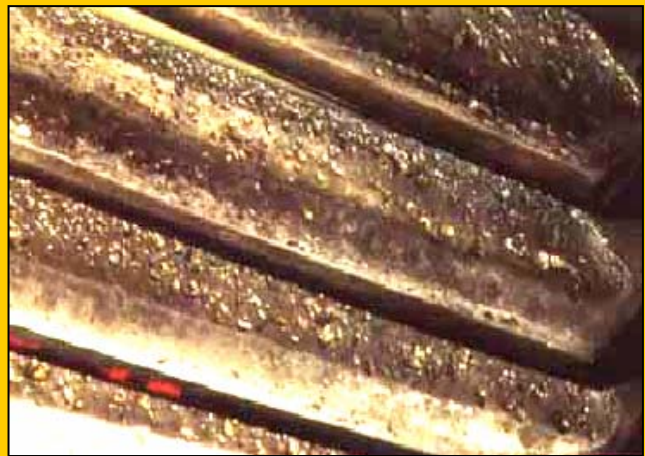
- ISO VG 5000
- Designation according DIN 51 502:
CLP 5000

Angaben entsprechen dem derzeitigen Stand der Technik. Änderungen vorbehalten. Die Angaben bedeuten keine Eigenschaftszusicherung für den Einzelfall und entbinden den Verbraucher nicht von eigenen Prüfungen. Weitere Daten auf Anfrage.

BERUGEAR GS 320 BM

น้ำมันเกียร์ประสิทธิภาพสูงสำหรับเกียร์บ็อกซ์โหลดสูง
หรือเกียร์ที่เกิดการสึกหรอแล้วจากการใช้งาน

ตามดที่เกิดขึ้นอย่างหนักบน
ผิวเกียร์หลังจากใช้น้ำมันเกียร์
EP 320แบบทั่วไป 2,000 ชั่วโมง



หน้าเกียร์ที่ชำรุดหลังจากใช้
BERUGEAR GS 320 BM
1,000 ชั่วโมง



C.T.L.INTERLUBE CO.,LTD

1147 moo.13 Bigland Factory T.Klong nueng A.Klong Luang 12120

Tel:9081587-8 Fax:9082085

<http://www.ctlinterlube.com> e-mail:suwin@ctlinterlube.com

Technical Product Information

BERUGEAR GS 220...1500 BM

High performance EP oils



Description
Solid free high performance gear and circulation oils for bearings or gearboxes running under high mechanical loads Forms reactive layers which provide physical as well as chemical actions thanks to which a microscopic reformation of surface structures and an increase of the contact pattern is supported Very beneficial to mechanisms made of steel or non-ferrous metals with a high portion of sliding friction such as worm gears Will not attack mineral oil resistant seal materials or machine paints Must not be used in presence of babbitt metal
Application examples
Spur, conical and worm gears in rolling mills, rubber kneaders, crushers, calanders, winches, cranes and conveyors Gear boxes with damaged or extremely high loaded tooth flanks

09/03

Properties:

- Operation temperature betw. -20°C to +120°C and 0°C to +130°C
- Can also be used as running-in oil even under load
- Very good load carrying capacity and wear protection
- Reduces the coefficient of friction, the oil sump temperature and thus the power loss
- Very good corrosion protection
- Very little foam formation

	GS 220 BM	GS 320 BM	GS 460 BM	GS 1500 BM	Norm
Product no.	9552102	9553602	9554602	9555702	
Type	CLP 220	CLP 320	CLP 460	CLP 1500	DIN 51 517/3
Appearance	brownish, clear	brownish, clear	brownish, clear	brownish, clear	
Kin. visc. 40 °C [mm ² /s]	232	334	474	1500	DIN 51 562
Kin. visc. 100 °C [mm ² /s]	20	25	31	67	DIN 51 562
Viscosity-Index	100	97	95	> 95	DIN ISO 2909
Density 15 °C [g/cm ³]	0,91	0,91	0,91	0,93	DIN 51 757
Pour point [°C]	-26	-21	-15	-9	DIN ISO 3016
Flash point [°C]	250	270	265	230	DIN ISO 2592
FZG test A/8,3/90					DIN 51354-2
Load stage	> 12	> 12	> 12	> 12	
wear [mg/kWh]	< 0,3	< 0,3	< 0,3	< 0,3	
FZG micro pitting test C/8,3/90					
Load stage	> 10	> 10	> 10	> 10	

Angaben entsprechen dem derzeitigen Stand der Technik, Änderungen vorbehalten. Die Angaben bedeuten keine Eigenschaftszusicherung für den Einzelfall und entbinden den Verbraucher nicht von eigenen Prüfungen. Weitere Daten auf Anfrage.



BERULIT GA 2500 FLUID

จารบีประสิทธิภาพสูงสำหรับ
Gear coupling
ในอุตสาหกรรมน้ำตาล



C.T.L.INTERLUBE CO.,LTD

1147 moo.13 Bigland Factory T.Klong nueng A.Klong Luang 12120

Tel:9081587-8 Fax:9082085

<http://www.ctlinterlube.com> e-mail:monrue@asianet.co.th

Technical data sheet

BERULIT GA 2500 FLUID

Open Gear lubricant



9006561
07.02

Description
Service lubricant for large open gear drives operating under heavy loads and high circumferential speeds to be applied by immersion or circulation systems Ensures high operational reliability of gear drives even under adverse dynamic or thermal conditions
Application examples
Open gear drives of mixing drums, dryers, ball mills, rotary kilns Heavily loaded tooth couplings

Properties:

- Operation temperature +0°C to +200 °C
- thermal stability -30°C to 250°C
- very good adherence
- high lubricant film pressure resistance
- excellent wear and corrosion protection
- no hardening or brittling of lubricant film
- contains no bituminous ingredients, solvents or toxic heavy metals

Thickener		Al-compl.		
Worked penetration	0,1mm	ca. 500	DIN ISO 2137	
Timken-test (mixed friction)	Load	lbs	50	SEB 181 302
	Wear	mg	< 5	
VKA-weld load	N	8000	DIN 51 350	
FZG Test A/2,76/50				
Damage load stage		> 12	DIN 51 354	
Specific wear	mg/kWh	< 0,2		
Solid lubricants		Graphite ultra-fine		
Content	%	appr. 10		
Base oil		Min. / Synth.		
Kin. viscosity at 40°C	mm ² /s	appr. 2500	DIN 51 562	
Kin. viscosity at 100°C	mm ² /s	appr. 108	DIN 51 562	
Flash point	°C	> 280	DIN ISO 2592	
Pourpoint	°C	appr. -5	DIN ISO 3016	

Characteristic data

- NLGI-grade 000
- Designation according DIN 51 502: OGPF000S+0

Angaben entsprechen dem derzeitigen Stand der Technik. Änderungen vorbehalten. Die Angaben bedeuten keine Eigenschaftszusicherung für den Einzelfall und entbinden den Verbraucher nicht von eigenen Prüfungen. Weitere Daten auf Anfrage.



Special Lubricants Made by BECHEM



Spezialschmierstoffe

Hoch- und Tieftemperaturschmierstoffe
Langzeit- und Grenzschmierstoffe
Kunststoff-Schmierung
Elektrokontakt-Schmierstoffe
Lebensmittelschmierstoffe
Armaturenschmierstoffe

Special Lubricants

Lubricants for high and low temperature
Lubricants for lifetime
Lubricants for plastics
Lubricants for electrical contacts
Lubricants for the food industry
Valve lubricants



Industrieschmierstoffe

Hochleistungs-Mehrzweckfette
Spezial EP-Schmierstoffe
Hydrauliköle
Getriebschmierstoffe (Open Gear)
Umweltfreundliche Schmierstoffe
Schalungstrennmittel

Lubricants for the Industry

High performance multipurpose greases
Special EP-greases
Hydraulic oils
Gear lubricants (Open Gear)
Biodegradable lubricants
Release agents



Metallbearbeitungsmedien

Kühlschmierstoffe
Schneidöle
Tiefbohröle
Korrosionsschutzöle
Härteöle
Reinigungsmedien

Metal Working Mediums

Coolants
Cutting oils
Deep drilling oils
Anti corrosion oils
Quenching oils
Cleaning fluids



Umformtechnik

Kaltfließpreßöle
Halbwarm- und Warmumformung
Drahtzugmedien
Tiefziehmedien
Rohrzug

Metal Forming Fluids

Cold forging oils
Release agents for semi-hot and hot forging
Wire drawing lubricants
Deep drawing oils
Tube drawing

CARL BECHEM GMBH

Weststraße 120
D-58089 Hagen

Tel. +49 (0) 23 31 935-0
Fax +49 (0) 23 31 935-1199

e-mail: bechem@bechem.de
<http://www.bechem.com>