LGMT 2

General purpose industrial and automotive bearing grease

SKF LGMT 2 is mineral oil based, lithium soap thickened grease with excellent thermal stability within its operating temperature range. This premium quality, general purpose grease is suitable for a wide range of industrial and automotive applications.

- Excellent oxidation stability
- Good mechanical stability
- Excellent water resistance and rust inhibiting properties

Typical applications

- Agricultural equipment
- Automotive wheel bearings
- Conveyors
- Small electric motors
- Industrial fans

Available pack sizes

Packsize	Designation
35 g tube	LGMT 2/0.035
200 g tube	LGMT 2/0.2
420 ml cartridge	LGMT 2/0.4
1 kg can	LGMT 2/1
5 kg can	LGMT 2/5
18 kg pail	LGMT 2/18
50 kg drum	LGMT 2/50
180 kg drum	LGMT 2/180

Technical data

Designation	LGMT 2
DIN 51825 code	K2K-30
NLGI consistency class	2
Thickener	Lithium
Colour	Red brown
Base oil type	Mineral
Operating temperature range	–30 to +120 °C *(–20 to +250 °F)*
Dropping point DIN ISO 2176	>180 °C *(>355 °F)*
Base oil viscosity	
40 °C, mm^2/s	110
100 °C, mm^2/s	11
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	265–295
100 000 strokes, 10^{-1} mm	+50 max.
Mechanical stability	
Roll stability, 50 hrs at 80 °C, 10^{-1} mm	
V2F test	+50 max. 'M'
Corrosion protection	
Emcor:	
– standard ISO 11007	0–0
– water washout test	0–0
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	1–6
Lubrication ability	
R2F, running test B at 120 °C	Pass
Copper corrosion	
DIN 51 811	2 max. at 110 °C *(230 °F)*
Rolling bearing grease life	
R0F test , L_{50} life at 10 000 r/min., hrs	1 000 min. at 100 °C *(212 °F)*
Shelf life	5 years

These characteristics represent typical values.

LGMT 3

General purpose industrial and automotive bearing grease

SKF LGMT 3 is mineral oil based, lithium soap thickened grease. This premium quality, general purpose grease is suitable for a wide range of industrial and automotive applications requiring stiff grease.

- Excellent rust inhibiting properties
- High oxidation stability within its recommended temperature range

Typical applications

- Bearings >100 mm *(3.9 in.)* shaft size
- Outer bearing ring rotation
- Vertical shaft applications
- Continuous high ambient temperatures >35 °C *(95 °F)*
- Propeller shafts
- Agricultural equipment
- Car, truck and trailer wheel bearings
- Large electric motors

Available pack sizes

Packsize	Designation
420 ml cartridge	LGMT 3/0.4
0,5 kg can	LGMT 3/0.5
1 kg can	LGMT 3/1
5 kg can	LGMT 3/5
18 kg pail	LGMT 3/18
50 kg drum	LGMT 3/50
180 kg drum	LGMT 3/180
TLMR	page 172

Technical data

Designation	LGMT 3
DIN 51825 code	K3K-30
NLGI consistency class	3
Thickener	Lithium
Colour	Amber
Base oil type	Mineral
Operating temperature range	–30 to +120 °C *(–20 to +250 °F)*
Dropping point DIN ISO 2176	>180 °C *(>355 °F)*
Base oil viscosity	
40 °C, mm^2/s	125
100 °C, mm^2/s	12
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	220–250
100 000 strokes, 10^{-1} mm	280 max.
Mechanical stability	
Roll stability, 50 hrs at 80 °C, 10^{-1} mm	295 max.
V2F test	'M'
Corrosion protection	
Emcor: – standard ISO 11007	0–0
– water washout test	0–0
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	1–3
Lubrication ability	
R2F, running test B at 120 °C	Pass
Copper corrosion	
DIN 51 811	2 max. at 130 °C *(265 °F)*
Rolling bearing grease life	
R0F test, L_{50} life at 10 000 r/min., hrs	1 000 min. at 130 °C *(265 °F)*
Shelf life	5 years

These characteristics represent typical values.

LGEP 2

High load, extreme pressure bearing grease

SKF LGEP 2 is mineral oil based, lithium soap thickened grease with extreme pressure additives. This grease provides good lubrication in general applications subjected to harsh conditions and vibrations.

- Excellent mechanical stability
- Extremely good corrosion inhibiting properties
- Excellent EP performance

Typical applications

- Pulp and paper making machines
- Jaw crushers
- Dam gates
- Work roll bearings in steel industry
- Heavy machinery, vibrating screens
- Crane wheels, sheaves
- Slewing bearings

Available pack sizes

Packsize	Designation
420 ml cartridge	LGEP 2/0.4
1 kg can	LGEP 2/1
5 kg can	LGEP 2/5
18 kg pail	LGEP 2/18
50 kg drum	LGEP 2/50
180 kg drum	LGEP 2/180
TLMR	page 172

Technical data

Designation	LGEP 2
DIN 51825 code	KP2G-20
NLGI consistency class	2
Thickener	Lithium
Colour	Light brown
Base oil type	Mineral
Operating temperature range	–20 to +110 °C *(–5 to +230 °F)*
Dropping point DIN ISO 2176	>180 °C *(>355 °F)*
Base oil viscosity:	
40 °C, mm^2/s	200
100 °C, mm^2/s	16
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	265–295
100 000 strokes, 10^{-1} mm	+50 max.
Mechanical stability:	
Roll stability, 50 hrs at 80 °C, 10^{-1} mm	+50 max.
V2F test	'M'
Corrosion protection	
Emcor: – standard ISO 11007	0–0
– water washout test	0–0
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	2–5
Lubrication ability	
R2F, running test B at 120 °C	Pass
Copper corrosion	
DIN 51 811	2 max. at 110 °C *(230 °F)*
EP performance	
Wear scar DIN 51350/5, 1 400 N, mm	1,4 max
4–ball test, welding load DIN 51350/4, N	2 800 min.
Rolling bearing grease life	
ROF test, L_{50} life at 10 000 r/min., hrs	1 000 min. at 110 °C *(230 °F)*
Shelf life	5 years

These characteristics represent typical values.

LGWA 2

High load, extreme pressure, wide temperature range bearing grease

SKF LGWA 2 is a premium quality mineral oil based, lithium complex grease with extreme pressure (EP) performance. LGWA 2 is recommended for general industrial and automotive applications, when loads or temperatures exceed the range of general purpose greases.

- Excellent lubrication at peak temperatures up to 220 °C *(430 °F)* for short periods
- Protection of wheel bearings operating under severe conditions
- Effective lubrication in wet conditions
- Good water and corrosion resistance
- Excellent lubrication under high loads and low speeds

Typical applications

- Wheel bearings in cars, trailers and trucks
- Washing machines
- Fans and electric motors

Available pack sizes

Packsize	Designation
200 g tube	LGWA 2/0.2
420 ml cartridge	LGWA 2/0.4
1 kg can	LGWA 2/1
5 kg can	LGWA 2/5
18 kg pail	LGWA 2/18
50 kg drum	LGWA 2/50
180 kg drum	LGWA 2/180
LAGD, TLSD, TLMR	page 166, 168, 172

Technical data

Designation	LGWA 2
DIN 51825 code	KP2N-30
NLGI consistency class	2
Thickener	Lithium complex
Colour	Amber
Base oil type	Mineral
Operating temperature range	–30 to +140 °C *(–20 to +285 °F)*
Dropping point DIN ISO 2176	>250 °C *(>480 °F)*
Base oil viscosity	
40 °C, mm^2/s	185
100 °C, mm^2/s	15
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	265–295
100 000 strokes, 10^{-1} mm	+50 max. (325 max.)
Mechanical stability	
Roll stability, 50 hrs at 80 °C, 10^{-1} mm	+50 max. change
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Corrosion protection	
Emcor: – standard ISO 11007	0–0
– water washout test	0–0
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	1–5
Lubrication ability	
R2F, running test B at 120 °C	Pass at 100 °C *(210 °F)*
Copper corrosion	
DIN 51 811	2 max. at 100 °C *(210 °F)*
Rolling bearing grease life	
R0F test, L_{50} life at 10 000 r/min., hrs	1 000 min. at 120 °C *(248 °F)*
EP performance	
Wear scar DIN 51350/5, 1 400 N, mm	1,8 max.
4–ball test, welding load DIN 51350/4, N	2 600 min.
Shelf life	5 years

These characteristics represent typical values.

LGGB 2

Biodegradable bearing grease

SKF LGGB 2 is a biodegradable, low toxicity, synthetic ester oil based grease, using a lithium-calcium thickener. Its special formulation makes it most suitable for applications where environmental contamination is a concern.

- Good performance in applications with steel-on-steel spherical plain bearings, ball bearings and roller bearings
- Good low temperature start-up performance
- Good corrosion inhibiting properties
- Suitable for medium to high loads

Typical applications

- Agricultural and forestry equipment
- Construction and earthmoving equipment
- Mining and conveying equipment
- Water treatment and irrigation
- Locks, dams, bridges
- Linkages, rod ends

Available pack sizes

Packsize	Designation
420 ml cartridge	LGGB 2/0.4
5 kg can	LGGB 2/5
18 kg pail	LGGB 2/18
LAGD	page 166

Technical data

Designation	LGGB 2
DIN 51825 code	KPE 2K-40
NLGI consistency class	2
Thickener	Lithium/calcium
Colour	Off white
Base oil type	Synthetic ester
Operating temperature range	–40 to +90 °C *(–40 to +195 °F)*
Dropping point DIN ISO 2176	>170 °C *(>340 °F)*
Base oil viscosity	
40 °C, mm^2/s	110
100 °C, mm^2/s	13
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	265–295
100 000 strokes, 10^{-1} mm	+50 max.
Mechanical stability	
Roll stability, 50 hrs at 80 °C, 10^{-1} mm	+70 max.
Corrosion protection	
Emcor: – standard ISO 11007	0–0
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	0 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	0,8–3
Lubrication ability	
R2F, running test B at 120 °C	Pass at 100 °C *(210 °F)*
Rolling bearing grease life	
R0F test L_{50} life at 10 000 r/min., hrs	1000 at 100 °C *(212 °F)*
EP performance	
Wear scar DIN 51350/5, 1 400 N, mm	1,8 max.
4–ball test, welding load DIN 51350/4, N	2 600 min.
Shelf life	2 years

These characteristics represent typical values.

LGLT 2

Low temperature, extremely high speed bearing grease

SKF LGLT 2 is a fully synthetic oil based grease using lithium soap. Its unique thickener technology and low viscosity oil (PAO) provide excellent lubrication performance at low temperatures –50 °C *(–60 °F)* and extremely high speeds (n d_m values of 1,6 × 10^6 can be reached).

- Low friction torque
- Quiet running
- Extremely good oxidation stability and resistance to water

Typical applications

- Textile spinning spindles
- Machine tool spindles
- Instruments and control equipment
- Small electric motors used in medical and dental equipment
- In-line skates
- Printing cylinders
- Robots

Available pack sizes

Packsize	Designation
180 g tube	LGLT 2/0.2
0,9 kg can	LGLT 2/1
25 kg pail	LGLT 2/25

Technical data

Designation	LGLT 2
DIN 51825 code	KHC2G-50
NLGI consistency class	2
Thickener	Lithium
Colour	Beige
Base oil type	Synthetic (PAO)
Operating temperature range	–50 to +110 °C *(–60 to +230 °F)*
Dropping point DIN ISO 2176	>180 °C *(>355 °F)*
Base oil viscosity	
40 °C, mm^2/s	18
100 °C, mm^2/s	4,5
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	265–295
100 000 strokes, 10^{-1} mm	+50 max.
Corrosion protection	
Emcor: – standard ISO 11007	0–1
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	4 max.
Copper corrosion	
DIN 51 811	1 max. at 100 °C *(210 °F)*
Rolling bearing grease life	
ROF test	>1 000,
L_{50} life at 10 000 r/min., hrs	20 000 r/min. at 100 °C *(210 °F)*
EP performance	
4–ball test, welding load DIN 51350/4, N	2 000 min.
Shelf life	5 years

These characteristics represent typical values.

LGWM 1

Extreme pressure low temperature bearing grease

SKF LGWM 1 is a low consistency mineral oil based grease, using a lithium soap and containing extreme pressure additives. It is extremely suitable for the lubrication of bearings operating under both radial and axial loads.

- Good oil film formation at low temperatures down to –30 °C *(–20 °F)*
- Good pumpability down to low temperatures
- Good corrosion protection
- Good water resistance

Typical applications

- Wind turbine main shafts
- Screw conveyors
- Centralised lubrication systems
- Spherical roller thrust bearing applications

Available pack sizes

Packsize	Designation
420 ml cartridge	LGWM 1/0.4
5 kg can	LGWM 1/5
18 kg pail	LGWM 1/18
50 kg drum	LGWM 1/50
180 kg drum	LGWM 1/180
TLMR	page 172

Technical data

Designation	LGWM 1
DIN 51825 code	KP1G-30
NLGI consistency class	1
Thickener	Lithium
Colour	Brown
Base oil type	Mineral
Operating temperature range	–30 to +110 °C *(–20 to +230 °F)*
Dropping point DIN ISO 2176	>170 °C *(>340 °F)*
Base oil viscosity	
40 °C, mm^2/s	200
100 °C, mm^2/s	16
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	310–340
100 000 strokes, 10^{-1} mm	+50 max.
Corrosion protection:	
Emcor: – standard ISO 11007	0–0
– water washout test	0–0
– salt water test (0.5% NaCl)	0-0
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	8–13
Lubrication ability	
R2F, running test B at 120 °C	Pass at 1 00 °C *(212 °F)*
Copper corrosion	
DIN 51 811	2 max. at 90 °C *(>195 °F)*
Rolling bearing grease life	
R0F test L_{50} life at 10 000 r/min., hrs	1 000 at 100 °C *(212 °F)*
EP performance	
Wear scar DIN 51350/5, 1 400 N, mm	1,8 max.
4–ball test, welding load DIN 51350/4, N	2 800 min.
Shelf life	5 years

These characteristics represent typical values.

LGEP 1

Extreme pressure bearing grease

SKF LGEP 1 is a high viscosity, low consistency mineral oil based grease, using a lithium-calcium thickener. It is extremely suitable for the lubrication of large bearings subjected to high loads and low speeds. LGEP 1 has been developed to deliver extended maintenance intervals while minimizing downtime.

- Excellent mechanical stability
- Very good protection against fretting and wear
- Good flow at low starting temperature
- Good flow properties that enable easy replenishment within the bearing design
- Low friction characteristics that help to maintain low operating temperatures
- Excellent water resistance and corrosion protection
- Good pumpability

Typical applications

- Wind turbine main shaft bearings
- Large bearing applications
- Heavy industrial applications
- Centralized lubrication systems

Available pack sizes

Packsize	LGEP 1
18 kg pail	LGEP 1/18

Technical data

Designation	LGEP 1
DIN 51825 code	KP1K-20
NLGI consistency class	1
Thickener	Lithium-Calcium
Colour	Beige
Base oil type	Mineral
Operating temperature range	–20 to +120 °C *(–4 to +248 °F)*
Dropping point DIN ISO 2176	170 °C min. *(338 °F min)*
Base oil viscosity	
40 °C, mm^2/s	400
100 °C, mm^2/s	25
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	310–340
100 000 strokes, 10^{-1} mm	+50 max.
Mechanical stability	
Roll stability, 50 hrs at 80 °C, 10^{-1} mm	+50 max.
Corrosion protection	
Emcor: – standard ISO 11007	0–0
– water washout test	0-0
– salt water test (1% NaCl)	0–0
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	1–5
Lubrication ability	
R2F, running test B at 120 °C	Pass at 80 °C *(176 °F)*
Copper corrosion	
DIN 51 811, 120 °C	1 max.
Rolling bearing grease life	
ROF test, L_{50} life at 10 000 r/min., hrs	1 000 min. at 100 °C *(212 °F)*
EP performance	
Wear scar DIN 51350/5, 1 400 N, mm	1.8 max.
4-ball test, welding load DIN 51350/4. N	3400 min.

These characteristics represent typical values.

LGWM 2

High load, wide temperature bearing grease

SKF LGWM 2 is a synthetic-mineral oil based grease using calcium sulphonate complex thickener. It is suitable for applications subjected to high loads, wet environments and fluctuating temperatures.

- Excellent corrosion protection
- Excellent mechanical stability
- Excellent high load lubricating capacity
- Good false brinelling protection
- Good pumpability down to low temperatures

Typical applications

- Wind turbine mains shafts
- Heavy duty off road applications
- Snow exposed applications
- Marine and offshore applications
- Spherical roller thrust bearing applications

Available pack sizes

Packsize	Designation
420 ml cartridge	LGWM 2/0.4
5 kg can	LGWM 2/5
18 kg pail	LGWM 2/18
50 kg drum	LGWM 2/50
180 kg drum	LGWM 2/180
LAGD, TLMR	page 166, 172

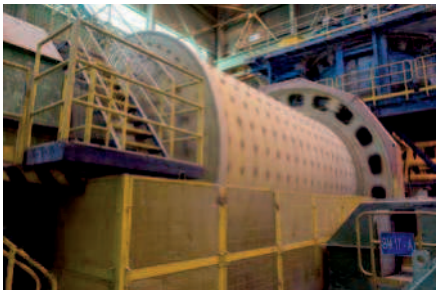
Technical data

Designation	LGWM 2
DIN 51825 code	KP2G-40
NLGI consistency class	1–2
Thickener	Calcium sulphonate complex
Colour	Light brown
Base oil type	Synthetic (PAO)/ Mineral
Operating temperature range	–40 to +110 °C *(–40 to +230 °F)*
Dropping point DIN ISO 2176	>300 °C *(>570 °F)*
Base oil viscosity	
40 °C, mm^2/s	80
100 °C, mm^2/s	10
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	280–310
100 000 strokes, 10^{-1} mm	+30 max.
Mechanical stability	
Roll stability, 50 hrs at 80 °C, 10^{-1} mm	+30 max.
Corrosion protection	
Emcor: – standard ISO 11007	0–0
– water washout test	0–0
– salt water test (0.5% NaCl)	0–0
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	3 max.
Lubrication ability	
R2F, running test B at 120 °C *(248 °F)*	Pass
Copper corrosion	
DIN 51 811	2 max. at 100 °C *(210 °F)*
Rolling bearing grease life	
R0F test, L_{50} life at 10 000 r/min., hrs	1 000) at 110 °C *(230 °F)*
EP performance	
Wear scar DIN 51350/5, 1 400 N, mm	2 max.
4–ball test, welding load DIN 51350/4, N	4 000 min.
Shelf life	5 years

These characteristics represent typical values.

LGEM 2

High viscosity bearing grease with solid lubricants



SKF LGEM 2 is a high viscosity, mineral oil based grease using a lithium/calcium soap.
Its content of molybdenum disulphide and graphite provides extra protection for harsh applications subjected to high loads, heavy vibrations and slow rotations.

- High oxidation stability
- Molybdenum disulphide and graphite provide lubrication even if the oil film breaks down

Typical applications

- Rolling element bearings running at low speed and very high loads
- Jaw crushers
- Track laying machines
- Lift mast wheels
- Building machines such as mechanical rams, crane arms and crane hooks

Available pack sizes

Packsize	Designation
420 ml cartridge	LGEM 2/0.4
5 kg can	LGEM 2/5
18 kg pail	LGEM 2/18
180 kg drum	LGEM 2/180
LAGD, TLSD	page 166, 168

Technical data

Designation	LGEM 2
DIN 51825 code	KPF2K-20
NLGI consistency class	2
Thickener	Lithium/calcium
Colour	Black
Base oil type	Mineral
Operating temperature range	–20 to +120 °C *(–5 to +250 °F)*
Dropping point DIN ISO 2176	>180 °C *(>355 °F)*
Base oil viscosity	
40 °C, mm^2/s	500
100 °C, mm^2/s	32
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	265–295
100 000 strokes, 10^{-1} mm	+50 max.
Mechanical stability	
Roll stability, 50 hrs at 80 °C, 10^{-1} mm	+50 max.
V2F test	'M'
Corrosion protection	
Emcor: – standard ISO 11007	0–0
– water washout test	0–0
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	1–5
Lubrication ability	
R2F, running test B at 120 °C	Pass at 100 °C *(210 °F)*
Copper corrosion	
DIN 51 811	2 max. at 100 °C *(210 °F)*
Rolling bearing grease life	
ROF test, L_{50} life at 10 000 r/min., hrs	1 000 min. at 100 °C *(212 °F)*
EP performance	
Wear scar DIN 51350/5, 1 400 N, mm	1,2 max.
4–ball test, welding load DIN 51350/4, N	3 400 min.
Shelf life	5 years

These characteristics represent typical values.

LGEV 2

Extremely high viscosity bearing grease with solid lubricants

SKF LGEV 2 is a mineral oil based grease, using a lithium-calcium soap. Its high content of molybdenum disulphide and graphite, in conjunction with an extremely high viscosity oil, provide outstanding protection under the harshest conditions involving high loads, slow rotations and severe vibrations.

- Extremely suitable for lubricating large sized spherical roller bearings subject to high loads and slow rotations, a situation where microslip is likely to occur
- Extremely mechanically stable providing good corrosion protection

Typical applications

- Trunnion bearings on rotating drums
- Support and thrust rollers on rotary kilns and dryers
- Bucket wheel excavators
- Slewing ring bearings
- High pressure roller mills
- Crushers

Available pack sizes

Packsize	Designation
35 g tube	LGEV 2/0.035
420 ml cartridge	LGEV 2/0.4
5 kg can	LGEV 2/5
18 kg pail	LGEV 2/18
50 kg drum	LGEV 2/50
180 kg drum	LGEV 2/180
TLMR	page 172

Technical data

Designation	LGEV 2
DIN 51825 code	KPF2K-10
NLGI consistency class	2
Thickener	Lithium/calcium
Colour	Black
Base oil type	Mineral
Operating temperature range	–10 to +120 °C *(15 to 250 °F)*
Dropping point DIN ISO 2176	>180 °C *(>355 °F)*
Base oil viscosity	
40 °C, mm^2/s	1 020
100 °C, mm^2/s	47
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	265–295
100 000 strokes, 10^{-1} mm	+50 max.
Mechanical stability	
Roll stability, 72 hrs at 100 °C, 10^{-1} mm	+50 max.
V2F test	'M'
Corrosion protection	
Emcor: – standard ISO 11007	0–0
– water washout test	0–0
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	1–5
Lubrication ability	
R2F, running test B at 120 °C	Pass at 100 °C *(210 °F)*
Copper corrosion	
DIN 51 811	1 max. at 100 °C *(210 °F)*
Rolling bearing grease life	
R0F test, L_{50} life at 10 000 r/min., hrs	1 000 at 100 °C *(210 °F)*
EP performance	
Wear scar DIN 51350/5, 1 400 N, mm	1,2 max.
4–ball test, welding load DIN 51350/4	3 000 min.
Shelf life	5 years

These characteristics represent typical values.

LGHB 2

High load, high temperature, high viscosity bearing grease

SKF LGHB 2 is a high viscosity, mineral oil based grease, using calcium sulphonate complex thickener. Formulated to withstand high temperatures and extreme loads, it is suitable for a wide range of applications, especially in the cement, mining and metals segments.

- Excellent load capacity, anti-oxidation and corrosion protection even with large water ingress
- Withstands peak temperatures of 200 °C *(390 °F)*

Typical applications

- Steel on steel plain bearings
- Pulp and paper making machines
- Asphalt vibrating screens
- Continuous casting machines
- Sealed spherical roller bearings operating up to 150 °C *(300 °F)*
- Work roll bearings in steel industry
- Mast rollers of fork lift trucks

Available pack sizes

Packsize	Designation
420 ml cartridge	LGHB 2/0.4
5 kg can	LGHB 2/5
18 kg pail	LGHB 2/18
50 kg drum	LGHB 2/50
180 kg drum	LGHB 2/180
LAGD, TLSD, TLMR	page 166, 168, 172

Technical data

Designation	LGHB 2
DIN 51825 code	KP2N-20
NLGI consistency class	2
Thickener	Calcium sulphonate complex
Colour	Brown
Base oil type	Mineral
Operating temperature range	–20 to +150 °C *(–5 to +300 °F)*
Dropping point DIN ISO 2176	>220 °C *(>430 °F)*
Base oil viscosity	
40 °C, mm^2/s	425
100 °C, mm^2/s	27,5
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	265–295
100 000 strokes, 10^{-1} mm	–20 to +50 max.
Mechanical stability	
Roll stability, 72 hrs at 100 °C, 10^{-1} mm	–20 to +50 max.
V2F test	'M'
Corrosion protection	
Emcor: – standard ISO 11007	0–0
– water washout test	0–0
– salt water test (0.5% NaCl)	0–0
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	1–3 at 60 °C *(140 °F)*
Lubrication ability	
R2F, running test B at 120 °C	Pass at 140 °C *(285 °F)*
Copper corrosion	
DIN 51 811	2 max. at 150 °C *(300 °F)*
Rolling bearing grease life	
ROF test, L_{50} life at 10 000 r/min., hrs	>1 000 at 130 °C *(265 °F)*
EP performance	
Wear scar DIN 51350/5, 1 400 N, mm	2 max.
4–ball test, welding load DIN 51350/4, N	4 000 min.
Shelf life	5 years

These characteristics represent typical values.

LGHC 2

High load, water resistant, high temperature bearing grease

LGHC 2 is a mineral oil based grease based on calcium sulphonate complex technology.
It is formulated to withstand high loads, large amounts of water and high temperatures.
It is most suitable for heavy applications, especially in the cement, mining and metals segments.

- Good mechanical stability
- Excellent corrosion protection
- Excellent high load lubricating capacity

Typical applications

- Roll stands in metallurgical industry
- Continuous casters
- Vibrating screens
- Ball mills bearings

Available pack sizes

Packsize	Designation
50 kg drum	LGHC 2/50
180 kg drum	LGHC 2/180

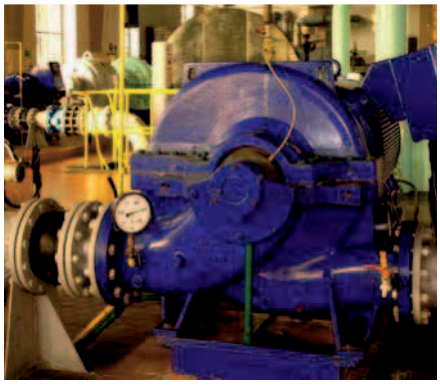
Technical data

Designation	LGHC 2
DIN 51825	KP2N-20
NLGI consistency class	2
Soap type	Calcium sulphonate complex
Colour	Brown
Base oil type	Mineral
Operating temperature range	–20 to +140 °C *(–4 to +284 °F)*
Dropping point, DIN ISO 2176	>300 °C *(>572 °F)*
Base oil viscosity	
40 °C, mm^2/s	450
100 °C, mm^2/s	31
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	265-295
100 000 strokes, 10^{-1} mm	+30 max.
Mechanical stability	
Roll stability, 50 hrs at 80 °C, 10^{-1} mm	+30 max.
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Corrosion protection	
Emcor: – standard ISO 11007	0–0
– salt water test (0.5% NaCl)	0–1
Oil separation	
DIN 51 817, 7 days at 60 °C, static, %	1-3
Lubrication ability	
R2F, running test B at 120 °C	Pass
Copper corrosion	
DIN 51 811, 100 °C	1b max.
Rolling bearing grease life	
R0F test, L_{50} life at 10 000 r/min., hrs	1 000 at 110 °C *(230 °F)*
EP performances	
Wear scar, DIN 51350/5, 1 400 N, mm	1.2
Weld load, DIN 51350/4, N	4 000
Shelf life	5 years

These characteristics represent typical values.

LGHP 2

High performance, high temperature bearing grease



SKF LGHP 2 is a premium quality mineral oil based grease, using a modern Polyurea (di-urea) thickener. It is suitable for electric motors and similar applications.

- Extremely long life at high temperatures
- Wide temperature range
- Excellent corrosion protection
- High thermal and mechanical stability
- Good start-up performance at low temperatures
- Compatibility with common polyurea and lithium thickened greases
- Low noise properties

Typical applications

- Electric motors: Small, medium and large
- Industrial fans, including high speed fans
- Water pumps
- Rolling bearings in textile, paper processing and drying machines
- Applications with medium and high speed ball (and roller) bearings operating at medium and high temperatures
- Clutch release bearings, Vertical shaft applications, Kiln trucks and rollers

Available pack sizes

Packsize	Designation
420 ml cartridge	LGHP 2/0.4
1 kg can	LGHP 2/1
5 kg can	LGHP 2/5
18 kg pail	LGHP 2/18
50 kg drum	LGHP 2/50
180 kg drum	LGHP 2/180

Technical data

Designation	LGHP 2
DIN 51825 code	K2N-40
NLGI consistency class	2–3
Thickener	Di–urea
Colour	Blue
Base oil type	Mineral
Operating temperature range	–40 to +150 °C *(–40 to +300 °F)*
Dropping point DIN ISO 2176	>240 °C *(>465 °F)*
Base oil viscosity	
40 °C, mm^2/s	96
100 °C, mm^2/s	10,5
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	245–275
100 000 strokes, 10^{-1} mm	365 max.
Mechanical stability	
Roll stability, 50 hrs at 80 °C, 10^{-1} mm	365 max.
Corrosion protection	
Emcor: – standard ISO 11007	0–0
– water washout test	0–0
– salt water test (0.5% NaCl)	0–0
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	3 max.
Lubrication ability	
R2F, running test B at 100 °C	Pass
Copper corrosion	
DIN 51 811	1 max. at 150 °C *(300 °F)*
Rolling bearing grease life	
R0F test, L_{50} life at 10 000 r/min., hrs	1 000 min. at 150 °C *(300 °F)*
Shelf life	5 years

These characteristics represent typical values.

LGHQ 2

Electric motor bearing grease

SKF LGHQ 2 is a mineral oil based grease using a di-urea thickener. It is suitable for electric motors and similar applications. It is specifically designed for usage with single point lubricators.

- Excellent dispensability in lubricators
- Extremely long grease life
- Wide temperature range
- High thermal and mechanical stability
- Excellent corrosion protection

Typical applications

- Electric motors: Small, medium and large
- Industrial fans, including high speed fans
- Water pumps
- Rolling bearings in textile, paper processing and drying machines
- Vertical shaft applications

Available pack sizes

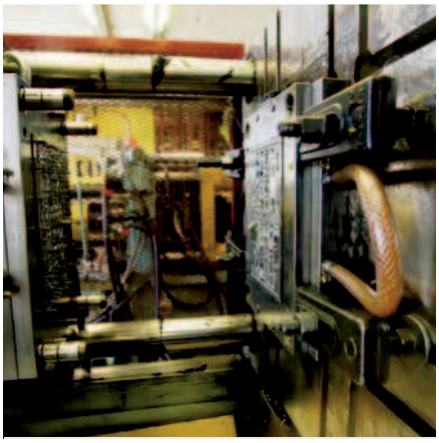
Packsize	Designation
420 ml cartridge	LGHQ 2/0.4
1 kg can	LGHQ 2/1
5 kg can	LGHQ 2/5
18 kg pail	LGHQ 2/18
LAGD, TLSD, TLMR	page 163, 166, 168

Technical data

Designation	LGHQ 2
DIN 51825 code	K2P-30
NLGI consistency class	2
Thickener	Di–urea
Colour	Blue
Base oil type	Mineral
Operating temperature range	–30 to +160 °C *(–2 to +320 °F)*
Dropping point DIN ISO 2176	>260 °C *(>500 °F)*
Base oil viscosity	
40 °C, mm^2/s	110
100 °C, mm^2/s	12
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	265–295
100 000 strokes, 10^{-1} mm	385 max.
Mechanical stability	
Roll stability, 50 hrs at 80 °C, 10^{-1} mm	385 max.
Corrosion protection	
Emcor: – standard ISO 11007	0–0
– water washout test	0–1
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	1–3
Copper corrosion	
DIN 51 811	1b max. at 100 °C
Rolling bearing grease life	
ROF test, L_{50} life at 10 000 r/min., hrs	1 000 min. at 160 °C *(302 °F)*
EP performance	
Wear scar DIN 51350/5, 1 400 N, mm	1 max.
4-ball test, welding load DIN 51350/4, N	2600 min.
Shelf life	5 years

These characteristics represent typical values.

LGET 2



Extreme temperature, extreme condition bearing grease

SKF LGET 2 is a synthetic fluorinated oil based grease, using a PTFE thickener. It is especially suitable for applications at extremely high temperatures from 200 °C *(390 °F)* up to 260 °C *(500 °F)*.

- Long life in aggressive environments such as very reactive areas with a presence of high purity gaseous oxygen and hexane
- Excellent oxidation resistance
- Good corrosion resistance
- Excellent water and steam resistance

Typical applications

- Kiln truck wheels
- Load rollers in copying machines
- Textile dryers
- Film stretching tenders
- Electric motors running at extreme temperatures
- Emergency / hot fans
- Vacuum pumps

Important note:

LGET 2 is a fluorinated grease and is not compatible with other greases, oils and preservatives (except LGED 2). Therefore, very thorough cleaning of bearings and systems is essential before applying fresh grease.

Note: the density of LGET 2 is about 1.9 g.cm^3. This value is twice as high as the average density of a typical bearing grease.

Available pack sizes

Packsize	Designation
50 g *(25 ml)* syringe	LGET 2/0.050
1 kg can	LGET 2/1

Technical data

Designation	LGET 2
DIN 51825 code	KFK2U-40
NLGI consistency class	2
Thickener	PTFE
Colour	White
Base oil type	PFPE
Operating temperature range	–40 to +260 °C *(–40 to +500 °F)*
Dropping point DIN ISO 2176	>300 °C *(>570 °F)*
Base oil viscosity	
40 °C, mm^2/s	400
100 °C, mm^2/s	38
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	265–295
Mechanical stability	
Roll stability, 50 hrs at 80 °C, 10^{-1} mm	±30 max. 130 °C *(265 °F)*
Corrosion protection	
Emcor:	
– standard ISO 11007	1–1 max.
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	0 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	1-3
Copper corrosion	
DIN 51 811	1 max. at 150 °C *(300 °F)*
Rolling bearing grease life	
ROF test, L_{50} life at 10 000 r/min., hrs	>1 000 at 220 °C *(428 °F)*
EP performance	
4–ball test, welding load DIN 51350/4, N	8 000 min.
Shelf life	5 years

These characteristics represent typical values.

Food grade lubricants

Grease	Description	Application examples	Base oil	Temperature range [1] LTL	HTPL
LGFP 2	General purpose food grade grease	Food processing equipment Wrapping machines Bottling machines	White mineral oil	–20 °C *(–5 °F)*	+110 °C *(+230 °F)*
LGFG 2	General purpose food grade grease	Conveyor bearings Wrapping machines Bottling machines	White mineral oil	–30 °C *(–22 °F)*	+140 °C *(+284 °F)*
LGFQ 2	High load, water resistant and wide temperature food grade grease	Pellet presses Mills Mixers	PAO	–40 °C *(–40 °F)*	+140 °C *(+284 °F)*
LGED 2	High temperature & harsh environment bearing grease	Bakery/brick oven equipment Glass industry Vacuum pumps	PFPE	–30 °C *(–22 °F)*	+240 °C *(+464 °F)*
LFFM 100	Food grade chain oil	General chain lubrication as in confectionery industries and fruit and vegetable processing. Even in the presence of moisture.	PAO	–30 °C *(–22 °F)*	+130 °C *(+265 °F)*
LFFT 220	Food grade chain oil	High temperature applications as bakery ovens	Ester	0 °C *(32 °F)*	+250 °C *(482 °F)*
LDTS 1	Food grade dry film lubricant	Conveyors in bottling lines using PET, carton, glass or can packages	Mineral/PTFE	–5 °C *(25 °F)*	+60 °C *(140 °F)*

These characteristics represent typical values.

Lubricants for non rolling bearing applications

Grease	Description	Application examples	Thickener/Base oil	Temperature range [1] LTL	HTPL
LMCG 1	Grid and gear coupling grease	Grid and gear couplings Flexible heavy duty grid and gear coupling	Polyethylene / mineral	0 °C *(32 °F)*	120 °C *(248 °F)*
LGTE 2	Biodegradable grease for total loss applications	Marine and wire rope applications Construction as well as forestry and agricultural equipment. Ecolabel certified.	Anhydrous calcium / ester	–40 °C *(–40 °F)*	+100 °C *(+212 °F)*
LGLS 0	Wide temperature lubrication systems grease	Plain bearings and chassis sliding surfaces Centralized lubrication systems	Anhydrous calcium / mineral	–40 °C *(–40 °F)*	+100 °C *(+212 °F)*
LGLS 2	High viscosity lubrication systems grease	Slow plain bearings, joints, wire ropes Lubrication systems under medium to high ambient temperatures	Anhydrous calcium / mineral	–20 °C *(–4 °F)*	+120 °C *(+248 °F)*
LHMT 68	Medium temperature chain oil	Ideal for medium temperatures and dusty environments	Mineral	–20 °C *(–4 °F)*	+100 °C *(212 °F)*
LHHT 250	High temperature chain oil	Ideal for high load and/or high temperature conditions	Ester	–0 °C *(32 °F)*	+250 °C *(482 °F)*

These characteristics represent typical values.

[1] LTL = Low Temperature Limit
HTPL = High Temperature Performance Limit

LGFP 2

General purpose food grade grease

SKF LGFP 2 is a clean, non-toxic bearing grease, which is based on medical white oil using an aluminium complex soap.

- High resistance to water
- Excellent grease life
- Excellent corrosion resistance
- An essentially neutral pH value
- NSF H1 registered and Halal and Kosher certified

Typical applications

- Wrapping machines
- Conveyor bearings
- Bottling machines

Available pack sizes

Packsize	Designation
420 ml cartridge	LGFP 2/0.4
1 kg can	LGFP 2/1
18 kg pail	LGFP 2/18
180 kg drum	LGFP 2/180

Technical data

Designation	LGFP 2
NLGI consistency class	2
DIN 51825 code	K2G-20
Colour	Transparent
Soap type	Aluminium complex
Base oil type	White mineral oil
Operating temperature range	–20 to +110 °C *(–5 to +230 °F)*
Dropping point DIN ISO 2176	>250 °C *(>480 °F)*
Base oil viscosity	
40 °C, mm^2/s	150
100 °C, mm^2/s	15,3
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	265–295
100 000 strokes, 10^{-1} mm	+60 max.
Corrosion protection	
Emcor: – standard ISO 11007	0–0
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	1–5
Copper corrosion	
DIN 51 811	1 max. at 120 °C *(248 °F)*
Rolling bearing grease life	
ROF test	
L_{50} life at 10 000 r/min., hrs	1 000 at 110 °C *(230 °F)*
EP performance	
4–ball test,	
welding load DIN 51350/4, N	1 100 min.
Shelf life	2 years
NSF Reg. No.	128004

These characteristics represent typical values.

LGFG 2

General purpose food grade grease

SKF LGFG 2 is a high performance food grade grease using complex calcium sulphonate thickener technology and a white mineral oil. It is suitable for applications subjected to high loads, wet environment and fluctuating temperatures encountered in the among others food and beverage industry.

- Wide temperature range
- Outstanding water resistance and corrosion protection
- Excellent mechanical stability
- Great dispensability in single point automatic lubricators
- Excellent protection against high loads and wear
- NSF ISO 21469 registered as well as Halal and Kosher certified

Typical applications

- Conveyor bearings
- Wrapping machines
- Bottling machines

Available pack sizes

Packsize	Designation
420 ml cartridge	LGFG 2/0.4
1 kg can	LGFG 2/1
18 kg pail	LGFG 2/18
180 kg drum	LGFG 2/180
LAGD, TLSD	page 166, 168

Technical data

Designation	LGFG 2
DIN 51825	KP2N-30
Thickener	Calcium sulphonate complex
NLGI grade	2
Colour	Brown
Base oil type	White mineral
Operating temperature range	–30 to +140 °C *(–22 to +285 °F)*
Dropping point, DIN ISO 2176	>280 °C *(>536 °F)*
Base oil viscosity	
40 °C, mm^2/s	150
100 °C, mm^2/s	16
Penetration DIN ISO 2137	
60 strokes	265–295
100 000 strokes	+50 max.
Mechanical stability	
Roll stability, 50h at 80 °C, 10^{-1} mm	+50 max.
Corrosion protection	
Emcor: – standard ISO 11007	0–0
– salt water test (0.5% NaCl)	0–0
– water wash out	0-0
Water resistance	
DIN 51807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51817, 7 days at 40 °C, %	1 - 5
Lubrication ability	
R2F, running test B at 120 °C	Pass
Copper corrosion	
DIN 51811 at 100 °C *(210 °F)*	1 max.
Rolling bearing grease life	
ROF test, L_{50} life at 10 000 r/min., hrs	1 000 min. at 120 °C *(248 °F)*
EP performances	
DIN 51350/5, wear scar, 1 400 N, mm	1 max.
DIN 51350/4, weld load, N	>4 00 min
Shelf life	2 years
NSF Reg. No.	164513

These characteristics represent typical values.

LGFQ 2

High load, water resistant and wide temperature food grade grease

SKF LGFQ 2 is a synthetic oil based grease using calcium suplhonate complex thickener It is suitable for applications subjected to high loads, wet environment and fluctuating temperatures encountered in the food and beverage industry.

- Excellent corrosion protection
- Excellent mechanical stability
- Excellent high load lubricating capacity
- Good false brinelling protection
- Good pumpability down to low temperatures
- NSF ISO 21469 registered and Halal and Kosher certified

Typical applications

- Pellet presses (pet food, sugar, salt)
- Mixers
- Mills
- Centralized lubrication systems

Available pack sizes

Packsize	Designation
420 ml cartridge	LGFQ 2/0.4
18 kg pail	LGFQ 2/18
50 kg drum	LGFQ 2/50
180 kg drum	LGFQ 2/180
LAGD, TLSD	page 166, 168

Technical data

Designation	LGFQ 2
DIN 51825	KP1/2N-40
Thickener	Calcium sulphonate complex
NLGI grade	1–2
Colour	Brown
Base oil type	Synthetic (PAO)
Operating temperature range	–40 to +140 °C *(–40 to +284 °F)*
Dropping point, DIN ISO 2176	>300 °C *(>570 °F)*
Base oil viscosity	
40 °C, mm^2/s	320
100 °C, mm^2/s	30
Penetration DIN ISO 2137	
60 strokes	280–310
100 000 strokes	+30 max.
Mechanical stability	
Roll stability, 50h at 80 °C, 10^{-1} mm	+30 max.
Corrosion protection	
Emcor: – standard ISO 11007	0–0
– salt water test (0.5% NaCl)	0–0
Water resistance	
DIN 51807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51817, 7 days at 40 °C, %	1-3
Lubrication ability	
R2F, running test B at 120 °C	Pass
Copper corrosion	
DIN 51811	1b max. at 100 °C *(210 °F)*
Rolling bearing grease life	
ROF test, L_{50} life at 10 000 r/min., hrs	1 000 min. at 130 °C *(266 °F)*
EP performances	
DIN 51350/5, wear scar, 1 400 N, mm	1 max.
DIN 51350/4, weld load, N	>4 000
Shelf life	2 years
NSF Reg. No.	153759

These characteristics represent typical values.

LGED 2

High temperature and harsh environment food grade grease

SKF LGED 2 is a food grade NSF H1 certified grease based on a synthetic fluorinated oil using a PTFE thickener. It is suitable for extremely high temperature from 180 °C *(392 °F)* up to 240 °C *(464 °F)* and/or agressive environments such as acids/alkalis, vacuum, oxygen etc.

- Excellent oxidation resistance
- Very low evaporation losses at high temperature
- Good corrosion resistance
- Long life in aggressive environments such as very reactive areas with a presence of high purity gaseous oxygen and hexane
- NSF H1 registered

Typical applications

- Bakery/brick oven equipment
- Glass industry
- Kiln truck wheels
- Load rollers in copying machines
- Wafer baking equipment
- Textile dryers
- Film streching tenders
- High temperature fans
- Vacuum pumps

Important note:

LGED 2 is a fluorinated grease and is not compatible with other greases, oils and preservatives (except LGET 2). Therefore, very thorough cleaning of bearings and systems is essential before applying fresh grease.

Note: the density of LGED 2 is about 1.9 g.cm^3. This value is twice as high as the average density of a typical bearing grease.

Available pack sizes

Packsize	Designation
1 kg can	LGED 2/1

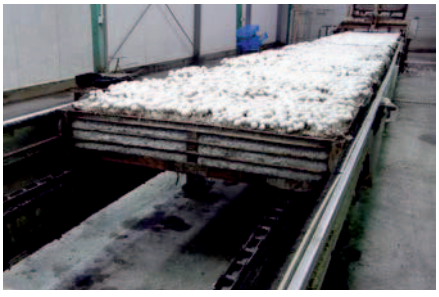
Technical data

Designation	LGED 2
DIN 51825 code	KFK2U-30
NLGI consistency class	2
Thickener	PTFE
Colour	White
Base oil type	PFPE
Operating temperature range	–30 to +240 °C *(–22 to +464 °F)*
Dropping point DIN ISO 2176	>300 °C *(>570 °F)*
Base oil viscosity	
40 °C, mm^2/s	460
100 °C, mm^2/s	42
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	265–295
100 000 strokes, 10^{-1} mm	+30
Corrosion protection	
Emcor:	
– standard ISO 11007	0–0
EP performance	
4–ball test, welding load DIN 51350/4, N	8 000 min.
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, %	1–3
Copper corrosion	
ISO 2160	1 max. at 100 °C *(210 °F)*
Rolling bearing grease life	
ROF test, L_{50} life at 10 000 r/min., hrs	1000 at 200 °C *(392 °F)*
Evaporation losses	
6 weeks at 200 °C, % weight losses	<3,5%
Oxygen pressure surge	
ISO 21010	70 bar
Shelf life	2 years
NSF Reg. No.	156010

These characteristics represent typical values.

LFFM 100

LFFT 220



Food grade chain oil

The SKF food grade chain oils are specifically designed and certified for use in chain applications in food processing and pharmaceutical industries

LFFM 100 - General purpose food grade chain oil

SKF LFFM 100 is a high-performance synthetic chain oil specially formulated for the lubrication of chains operating in food processing and pharmaceutical industries. It provides excellent load and anti-wear properties even in the presence of moisture and in low temperature environments.

- Certified for food industry with: NSF H1, NSF ISO 21469, Halal and Kosher
- Especially suitable for moist and low temperature environments
- Excellent steel and copper corrosion inhibition properties
- Excellent anti-wear protection
- Excellent oxidation stability
- Low residue formation

LFFT 220 - High temperature food grade chain oil

SKF LFFT 220 is a high performance synthetic oil specially formulated for the lubrication of chains operating at high temperatures and high loads in food processing and pharmaceutical industries. It provides excellent load and anti-wear properties and forms virtually no lacquers or residues, even when working at high temperatures.

- Certified for food industry with: NSF H1, NSF ISO 21469, Halal and Kosher
- Especially suitable for high operating temperatures, long relubrication intervals and low friction coefficients
- Excellent anti-wear protection
- Excellent steel and copper corrosion inhibition properties
- Excellent oxidation stability
- Virtually residue-free

Available pack sizes

Pack sizes	LFFM 100	LFFT 220
5 litre can	LFFM 100/5	LFFT 220/5
LAGD, TLSD	page 166, 168	page 166, 168

Technical data

Designation	LFFM 100	LFFT 220
Colour	Colourless	Yellow reddish
Base oil type	PAO	Ester
Density, DIN 51757, at 20°C *(68 °F)*	0.84 g/cm³ *(0.03 lb/in³)*	1.1 g/cm³ *(0.03 lb/in³)*
Operating temperature range	–30 to +130 °C *(–22 to +265 °F)*	Up to 250 °C *(482 °F)*
Flash point, DIN ISO 2592	>200 °C *(>392 °F)*	>250 °C *(482 °F)*
Pour point, DIN ISO 3016	≤-50 °C *(-58 °F)*	≤-30 °C *(-22 °F)*
Base oil viscosity ISO 3104:		
40 °C *(104 °F)*, mm²/s	ISO VG 100	ISO VG 220
100 °C *(212 °F)*, mm²/s	approx. 15	approx. 25
Water and corrosion		
Steel corrosion DIN ISO 7120-B	Pass	Pass
Copper corrosion DIN 51811 (3h/100 °C *(212 °F)*)	1 max	1 max
NSF Registration number	162872	162871
Shelf life	2 years	2 years

These characteristics represent typical values.

LDTS 1

Food grade dry film lubricant

SKF Dry Film Lubricant LDTS 1 has been specially developed for automatic lubrication of plastic flat top chain conveyors in the beverage processing industry. The lubricant consists of mineral oil and is doped with PTFE solid lubricant.

After storage a separation of the ingredients could be observed in the container, this is normal. Shaking the product will bring it to a normal status. Automatic lubrication systems must have an stirring mechanism.

- Cost savings by eliminating high volume of water and soluble lubricant
- Improved operator safety by reducing slip hazards
- Quality of packaging is maintained by elimination of moisture
- Reduced risk of product contamination by minimising microbiological growth
- Enhanced line efficiency by avoiding replacement costs and associated unplanned production stops
- Reduced cleaning costs
- NSF H1 registered

Typical applications

- Conveyors in bottling lines using PET, carton, glass or can packages.

Available pack sizes

Pack sizes	Designation
5 l can	LDTS 1/5

Technical data

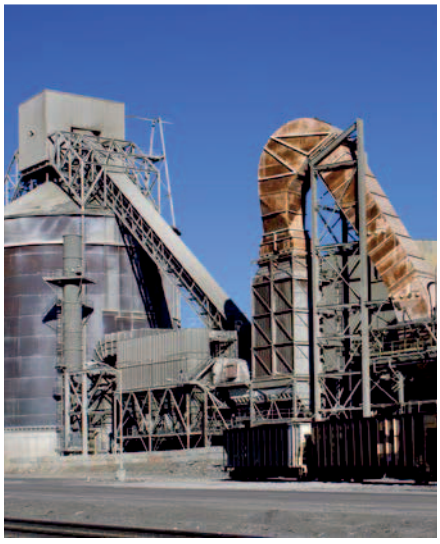
Designation	LDTS 1
Composition	Mineral oils, hydrocarbons, additives, PTFE
Appearance	White
Operating temperature range	–5 to +60 °C (*25 to 140 °F*)
Viscosity at 40 °C (*104 °F*)	ca. 28 mm^2/s
Pour point	<0 °C
Density 25 °C (*77 °F*)	ca. 841 kg/m^3
Flash point of the preparation	ca. 100 °C (*210 °F*)
Flash point after evaporation of the solvent	>170 °C (*340 °F*)
NSF Reg. No.	139739
Shelf life	2 years

These characteristics represent typical values.

Lubricants for non rolling bearing applications

LMCG 1

Grid and gear coupling grease



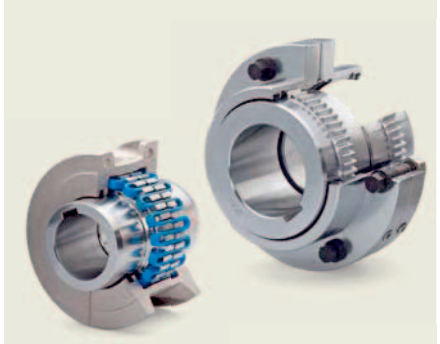
LMCG 1 is a polyethylene thickened and mineral oil based grease which also uses a lithium complex thickening technology. The grease is formulated to withstand high centrifugal forces and high-torque applications for grid and gear (flexible) couplings even where severe shock loadings, misalignment and vibration occur.

Leakage is prevented at high speeds and the grease is stable in consistency. The special additive formulations make the grease suitable for applications subjected to high loads, high torque, wet environments, a wide range of speed regimes and wide range of temperatures.

- Excellent resistance to oil separation
- High acceleration and high operating speeds
- Excellent high-torque lubrication
- High corrosion protection
- Exceeds AGMA Type CG-1 and AGMA Type CG-2 requirements

Typical industries

- Heavy industries (mining, mineral processing, cement, steel, pulp & paper).
- Marine industry.
- General machinery (petrochemical, power generation plants, etc.).



Applications

- Grid and gear couplings
- Flexible heavy duty grid and gear coupling

Available pack sizes

Packsize	LMCG 1
35 g tube	LMCG 1/0.035
420 ml cartridge	LMCG 1/0.4
2 kg can	LMCG 1/2
18 kg pail	LMCG 1/18

Technical data

Designation	LMCG 1
DIN 51825 code	GOG1G-0
NLGI consistency class	1
Thickener	Polyethylene
Colour	Brown
Base oil type	Mineral
Operating temperature range	0 to 120 °C *(32 to 248 °F)*
Dropping point IP 396	210 °C *(410 °F)*
Base oil viscosity	
40 °C, mm^2/s	761
100 °C, mm^2/s	44
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	310–340
Corrosion protection	
SKF Emcor standard ISO 11007	0–0
EP performance	
Wear scar DIN 51350/5, 400 N, mm	0,5 max.
4–ball test, welding load DIN 51350/4	3 200 N
Koppers Method	
K36, 24h, ASTM D4425	<24%
Shelf life	5 years

These characteristics represent typical values.

LGTE 2

Biodegradable grease for total loss applications

LGTE 2 is grease for total loss applications based on biodegradable esters and anhydrous calcium thickener. The grease is environmentally acceptable and certified with Ecolabel, making it the ideal grease for marine applications such as wire ropes.

- Biodegradable and categorized as "Total loss lubricant (TLL)" as defined by Ecolabel
- Environmentally acceptable lubricant according to "2013 Vessel General Permit"
- Excellent pumpability at low to medium temperatures
- Excellent adhesion to surfaces
- Excellent water resistance
- High load capacity

Typical applications

- Wire ropes
- Marine
- Construction equipment
- Forestry and agricultural equipment
- Heavy duty off-road application
- Plain bearings and bushings

EU Ecolabel www.ecolabel.eu

Available pack sizes

Packsize	LGTE 2
18 kg pail	LGTE 2/18

Technical data

Designation	LGTE 2
DIN 51825 code	KPE2G-40
NLGI consistency class	2
Thickener	Anhydrous calcium
Colour	Yellow
Base oil type	Ester
Operating temperature range	–40 to +100 °C *(–40 to +212 °F)*
Dropping point DIN ISO 2176	>140 °C *(>84 °F)*
Base oil viscosity	
40 °C, mm^2/s	500
100 °C, mm^2/s	50
Oil separation	
IP 121	1-3
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	265–295
100 000 strokes, 10^{-1} mm	+35 max.
Copper corrosion	
DIN 51 811, 100 °C	2 max.
Corrosion protection	
Emcor: – standard ISO 11007	0–0
– water washout test	0–1
– salt water test (0.5% NaCl)	<2-2
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Water wash-out test, ISO 11009	<5%
Flow pressure	
DIN 51805-2	<1 400 @ -40 °C
EP performance	
Wear scar DIN 51350/5, 1 400 N, mm	2 max.
4-ball test, welding load DIN 51350/4, N	3 200 min.
Biodegradability	
Ecolabel certification	SE/027/008
Biodegradability OECD 301B	>60%

These characteristics represent typical values.

LGLS 0

LGLS 2

Wide temperature lubrication systems grease

SKF LGLS 0 is a semi-fluid chassis grease that has been developed to be used via lubrication systems under low to medium temperatures.

High viscosity lubrication systems greasee

SKF LGLS 2 is a high viscosity grease that has been developed to be used ideally via lubrication systems under medium to high ambient temperatures.

- Excellent pumpability at low to medium temperatures (LGLS 0)
- Excellent pumpability at medium to high temperatures (LGLS 2)
- Excellent water resistance and corrosion protection
- Excellent anti-wear properties
- Excellent adhesion to surfaces

Typical applications

- Construction equipment
- Heavy duty off-road applications such as excavators, wheel loaders, etc.
- Forestry and agricultural equipment such as forwarders and harvesters
- Collector trucks
- Chassis
- Joints
- Slow plain bearings

Additional applications LGLS 2

- Harbour equipment
- Marine
- Wire rope lubrication

Available pack sizes

Pack sizes	LGLS 0	LGLS 2
18 kg pail	LGLS 0/18	LGLS 2/18
50 kg drum	LGLS 0/50	–
180 kg drum	LGLS 0/180	LGLS 2/180

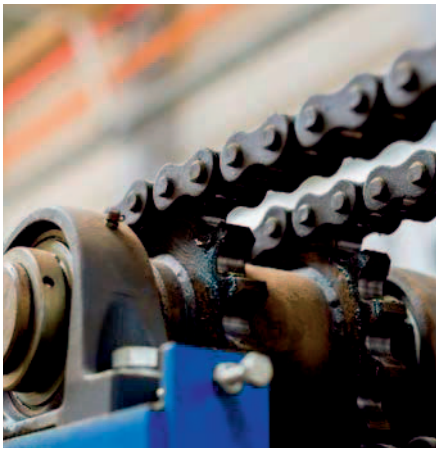
Technical data

Designation	LGLS 0	LGLS 2
DIN 51825 code	KP0G-40	KP2K-20
NLGI consistency class	0	2
Thickener	Anhydrous calcium	Anhydrous calcium
Colour	Red	Red
Base oil type	Mineral oil and polymers	Mineral oil and polymers
Operating temperature range	–40 to +100 °C *(–40 to +212 °F)*	–20 to +120 °C *(–4 to +248 °F)*
Dropping point IP 396	>120 °C *(>248 °F)*	>140 °C *(>284 °F)*
Base oil viscosity		
40 °C, mm²/s	1 370	1 300
100 °C, mm²/s	96	106
Penetration DIN ISO 2137		
60 strokes, 10^{-1} mm	355–385	265 -295
Corrosion protection		
SKF Emcor standard ISO 11007	0-0	0-0
SKF Emcor water wash out	-	0-0
Water washout		
ISO 11009, 1h/80 °C	-	5%
Flow pressure	<1 400 mbar at –40 °C	<1 400 mbar at –20 °C
EP performance		
4–ball test, welding load DIN 51350/4	3 000 N	2 800 N
4–ball test, wear scar DIN 51350/5 at 1 400 N	-	<2
Shelf life	5 years	5 years

These characteristics represent typical values.

LHMT 68

LHHT 250



Chain oil

SKF Chain oils are specifically designed for industrial chain applications and can be used in virtually every industry.

Typical applications

- Conveyor chains
- Drive chains
- Lift chains
- Ovens

LHMT 68 - Medium temperature chain oil

SKF LHMT 68 is a high-performance mineral oil specially formulated for the lubrication of chains operating at medium temperatures. It provides excellent anti-wear and anti-corrosion properties..

- Very good anti-wear protection
- Very good steel and copper corrosion inhibition properties
- Free from silicone

LHHT 250 - High temperature chain oil

SKF LHHT 250 is a high-performance synthetic oil specially formulated for the lubrication of chains at high temperatures and high loads. It provides excellent load and anti-wear properties and forms virtually no lacquers or residues, even when operating at high temperatures.

- High temperature and high load
- Excellent anti-wear protection
- Very good steel and copper corrosion inhibition properties
- Excellent oxidation stability
- Free from silicone
- Virtually residue-free

Available pack sizes

Pack sizes	LHMT 68	LHHT 250
5 litre can	LHMT 68/5	LHHT 250/5
LAGD, TLSD	page 166, 168	page 166, 168

Technical data

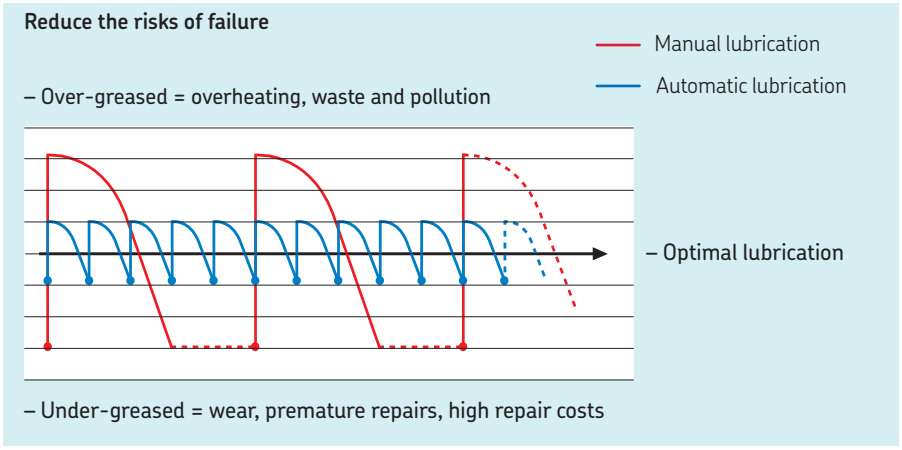
Designation	LHMT 68	LHHT 250
Colour	Yellow brown	Amber
Base oil type	Mineral	Ester
Density, DIN 51757, at 20°C *(68 °F)*	0.88 g/cm³ *(0.03 lb/in³)*	0.94 g/cm³ *(0.03 lb/in³)*
Operating temperature range	–20 to +100 °C *(–4 to +212 °F)*	Up to 250 °C *(482 °F)*
Flash point, DIN ISO 2592	>200 °C *(392 °F)*	>250 °C *(482 °F)*
Pour point, DIN ISO 3016	<-30 °C *(-22 °F)*	≤-40 °C *(-40 °F)*
Base oil viscosity ISO 3104:		
40 °C *(104 °F)*, mm²/s	ISO VG 68	approx. 250
100 °C *(212 °F)*, mm²/s	approx. 9	approx. 24
Water and corrosion		
Steel corrosion DIN ISO 7120-A	Pass	Pass
Copper corrosion DIN 51811 (3h/100 °C *(212 °F)*)	1 max	1 max
Shelf life	5 years	5 years

These characteristics represent typical values.

Automatic grease dispensing tools

Manual lubrication vs. automatic lubrication

Performing manual lubrication tasks can be challenging due to the vast number of lubrication points throughout a factory. Also, most of these points have varying lubrication requirements. Utilising automatic lubricators is one solution that can improve worker safety and increase machine reliability.



Challenges associated with manual lubrication

Manual lubrication tasks can be complex and inconvenient, often requiring equipment shutdown. Manual lubrication on difficult-to-access lubrication points also can increase the possibility of worker injury and take your valuable human resources away from other tasks.

Improper manual lubrication can be a factor in creating additional challenges. Failure to lubricate every lubrication point regularly can have a negative effect on equipment reliability, production schedules and maintenance efficiency. Other results of improper manual lubrication can be lubricant waste, environmental issues, increased energy consumption and finished product spoilage due to contamination of lubricant.

Benefits of using automatic lubricators

A lubricator is designed to automatically supply a small quantity of clean grease or oil to a lubrication point on a regular basis, thus improving bearing performance. Key benefits of using an automatic lubricator are improved employee safety, increased machine reliability and optimized maintenance operations.

SKF SYSTEM 24 lubricators are suitable for a variety of applications but often are used on pumps, electric motors, fans, blowers, conveyors and chains. They can be adjusted to ensure that the correct quantity of lubricant is delivered to the lubrication point during a predetermined period of time. This provides a more accurate control of the amount of lubricant supplied, when compared to traditional manual lubrication techniques.

Improving employee safety

Use of SKF SYSTEM 24 lubricators can have a positive impact on workplace safety because technicians can spend less time in confined spaces, with safety cages or guards removed, and on rooftop or elevated lubrication tasks.

Lubrication point behind safety guards

Safety cages and guards are utilised for a reason - to protect workers and others from injury caused by moving parts. By reducing the amount of time these implements are not in place, SKF SYSTEM 24 lubricators increase safety and eliminate the need to manually lubricate difficult-to-access lubrication points.

Elevated lubrication point

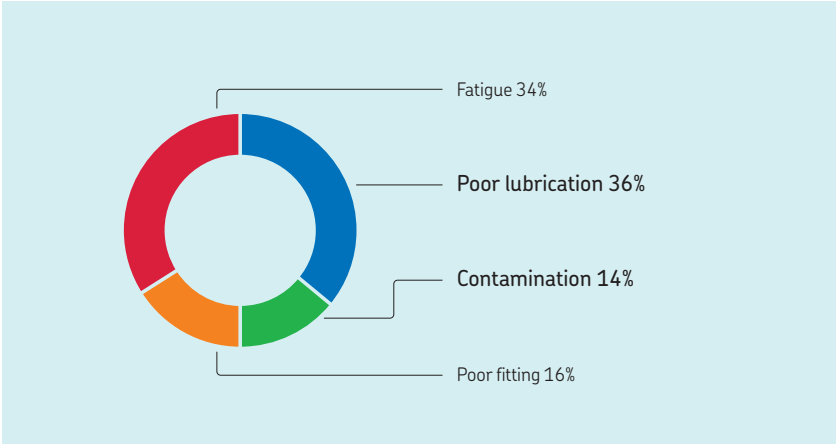
Lubrication points on rooftops or other high elevations can create a significant challenge, and the safety implications are evident. Due to apprehension, these lubrication points often are not lubricated properly and equipment reliability suffers.

Manual handling of lubricants

Improper handling of loose lubricant can expose technicians to chemicals. By eliminating manual handling of lubricant, SKF SYSTEM 24 lubricators reduce the potential for chemical exposure of workers.

Machine reliability

The importance of lubrication often is overlooked due to its underestimated impact on equipment total cost of ownership. However, machine reliability can be enhanced substantially with proper lubrication. As the leading supplier of bearings worldwide, SKF has conducted extensive research and determined that up to 50 percent of premature bearing failures are due to either improper lubrication practices or contamination.



Premature bearing failure

Approximately 36 percent of premature bearing failures are due to improper lubrication, such as too much, too little or the wrong type of lubricant. Another 14 percent of bearing failures occur because of contamination via poor seals or lubricant handling practices.

Clean, fresh lubricant

A continuous supply of clean, fresh grease or oil is essential when lubricating equipment. SKF SYSTEM 24 lubricators feature high quality SKF lubricants in a water- and dust-resistant design.

Positive pressure

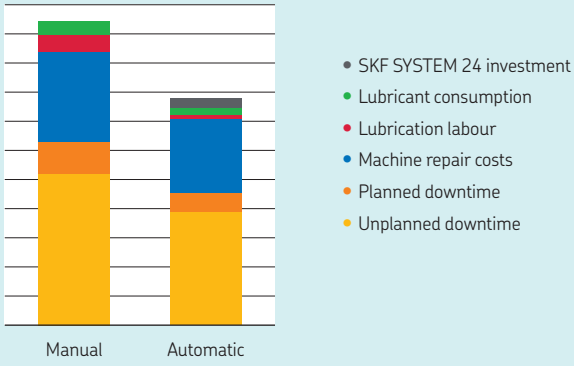
Positive pressure prevents contaminants from entering the bearing through the seal. SKF SYSTEM 24 lubricators can provide fresh lubricant and purge seals of smaller-sized bearings operating at lower speeds, while larger bearings may benefit from a separate lubricator for lubrication and seal purging.

Missed lubrication points

With manual lubrication, it is difficult and time consuming to find every lubrication point. Use of SKF SYSTEM 24 lubricators helps to ensure that each point is receiving the proper amount of lubricant on a set schedule.

Supporting effective maintenance

The use of automatic lubricators can have a large impact on effective maintenance. The most significant benefits usually are found in the reduction of unplanned downtime, machine repair costs, labor and lubricant consumption.



Cost savings of automatic lubrication

Based on numerous case studies, the illustration at left represents a comparison of manual vs. automatic lubrication. The results show improvement in all areas when using automatic lubrication with the most significant found in the reduction of downtime and repair costs.

Improved machine reliability

Using an SKF SYSTEM 24 lubricator provides increased machine reliability and, therefore, reduces unplanned downtime.

Increased productivity

Because automatic lubricators deliver lubricant while the equipment is in operation, there is less scheduled downtime and more productivity.

Better use of personnel

Automatic lubrication enables workers to focus on more value-added tasks, such as machine inspection.

Lower cost of ownership

Improved equipment reliability and performance means lower machine repair costs.

SKF SYSTEM 24

Gas driven single point automatic lubricators

LAGD series

The units are supplied ready-to-use straight from the box and filled with a wide range of high performance SKF lubricants. Tool-free activation and time-setting allow easy and accurate adjustment of lubrication flow.

- Flexible dispense rate from 1 to 12 months
- Stoppable or adjustable if required
- Intrinsic safety rating: ATEX approved for zone 0
- Transparent lubricant container allows visual inspection of dispense rate
- Compact size, permits installation in restrictive areas
- Greases and chain oils available

Typical applications

- Applications in restrictive and hazardous locations
- Bearing housing lubrication
- Electric motors
- Fans and pumps
- Conveyors
- Cranes
- Chains (oil)
- Elevators and escalators (oil)

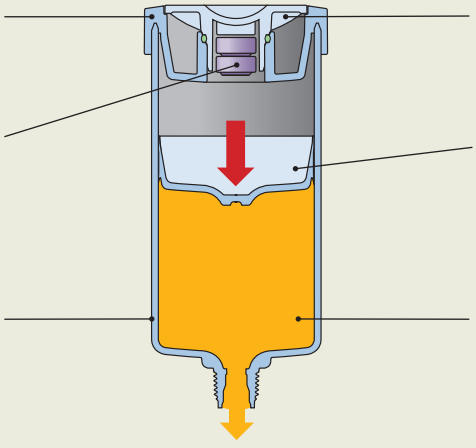
SKF DialSet (skf.com/dialset) helps to calculate the correct dispense rate.

Multiple accessories are available for LAGD lubricators.
More information can be found on pages 176-177.

Easy-grip top-cover
Specially designed top ring for an optimum grip

Gas cell
Detachable batteries for an environmentally friendly disposal

Lubricant container
Transparent lubricant container allows visual inspection of dispense rate



Toolless dial
Allows easy and accurate adjustment of flow rate

Piston
Special piston shape helps ensure optimum emptying of lubricator

SKF Lubricants
Filled with high quality SKF lubricants

Ordering details

Grease	Description	Unit 60 ml	Unit 125 ml
LGWA 2	High load, extreme pressure, wide temperature range	LAGD 60/WA2	LAGD 125/WA2
LGEM 2	High viscosity with solid lubricants	LAGD 60/EM2	LAGD 125/EM2
LGGB 2	Biodegradable	–	LAGD 125/GB2
LGHB 2	High load, high temperature, high viscosity	LAGD 60/HB2	LAGD 125/HB2
LGHQ 2	High load, high temperature, high viscosity	LAGD 60/HQ2	LAGD 125/HQ2
LGWM 2	High loads, wide temperature	–	LAGD 125/WM2
LGFG 2	General purpose food grade (NSF H1)	LAGD 60/FG2	LAGD 125/FG2
LGFQ 2	High load and wide temperature food grade (NSF H1)	–	LAGD 125/FQ2
Chain oils [1]			
LHMT 68	Medium temperature	LAGD 60/HMT68	LAGD 125/HMT68
LHHT 250	High temperature	–	LAGD 125/HT250
LFFM 100	General purpose food grade (NSF H1)	–	LAGD 125/FM100
LFFT 220	High temperature food grade (NSF H1)	–	LAGD 125/FT220
	Empty unit suitable for oil filling only	LAGD 60/U	LAGD 125/U

[1] Includes non-return valve

Technical data

Designation	LAGD 60 and LAGD 125
Grease capacity	
LAGD 60	60 ml *(2 US fl. oz)*
LAGD 125	125 ml *(4.2 US fl. oz)*
Nominal emptying time	Adjustable; 1–12 months
Ambient temperature range	
LAGD 60/.. and LAGD 125/..	–20 to +60 °C *(–5 to +140 °F)*
Maximum operating pressure	5 bar *(75 psi)* (at start-up)
Drive mechanism	Gas cell producing inert gas
Connection thread	R 1/4
Maximum feed line length with:	
grease	300 mm *(11.8 in.)*
oil	1 500 mm *(59.1 in.)*
Intrinsically safe approval	II 1G Ex ia IIC T6 Ga II 1D Ex ia IIIC T_{200} 85°C Da I M1 Ex ia I Ma
EC Type examination certificate	DEKRA 21ATEX0015 X
Protection class	IP 68
Recommended storage temperature	20 °C *(70 °F)*
Storage life of lubricator	2 years
Weight	
LAGD 60	approx 130 g *(4.6 oz)*
LAGD 125	approx 200 g *(7.1 oz)*
	Lubricant included

Note: If ambient temperature is constant between 40 °C and 60 °C (105 °F and 140 °F), do not select a setting of more than 6 months for optimum performance.

SKF SYSTEM 24

Electro-mechanical single point automatic lubricators

TLSD series

The SKF TLSD series is the first choice when a simple and reliable automatic lubricator is required under variable temperatures, or when the application conditions (such as vibration, limited space or hazardous environments) require a remote mounting.

- Filled with SKF Lubricants especially developed for bearing applications
- Maximum discharge pressure of 5 bar over the whole dispensing period
- Transparent reservoir allows visual inspection
- Refill sets include battery pack
- Suitable for both direct and remote installation
- Complete sets are supplied ready to use, including the drive unit, battery pack, filled lubricant canister and matching support plate.

Typical applications

- Critical applications where extreme reliability and additional monitoring is required
- Applications in restrictive and hazardous locations
- Applications requiring high volumes of lubricant

SKF DialSet (skf.com/dialset) helps to calculate the correct dispense rate.

Drive unit - TLSD 1-DS

Top part of TLSD with electric drive and time setting wheel. Supplied with plastic cap and support plate for grease lubrication

Refill set - e.g. LGWA 2/SD250

Replaceable canister filled with 125 ml or 250 ml of grease or oil. Every refill set is supplied with battery pack.

Support plate

The support plate for grease lubrication is supplied with TLSD 1-DS.
A support plate for oil lubrication with integrated non return valve (TLSD 1-SPV) can be ordered separately.

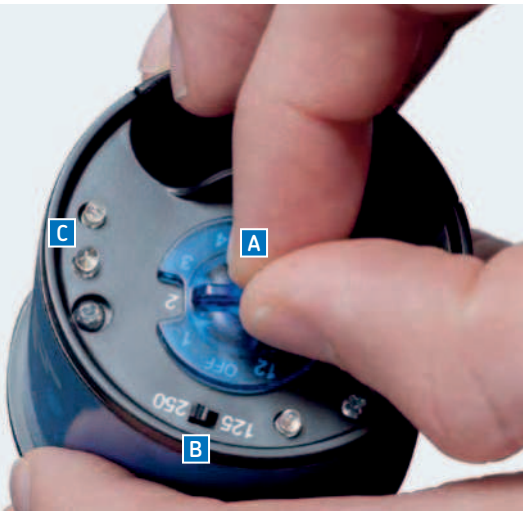
Multiple accessories are available for TLSD lubricators.
More information can be found on pages 176-177.

A The unit can be programmed to dispense lubricant in 1, 2, 3, 4, 6, 8, 9, 10 and 12 month settings.

B The same drive unit can be used with both cartridge versions by simply adjusting the 125/250 ml switch.

C Traffic light LEDs are visual from all sides because of the presence of dual LEDs on the sides of the lubricator. The meaning of the lights is as follows:

- **Green light:** The lubricator is properly functioning.
- **Yellow light:** The lubricator is still functioning, but soon some action will be required. Yellow light serves as a pre-warning light.
- **Red light:** The lubricator stopped operating.



Ordering details

Grease	Description	Complete unit 125	Complete unit 250	Cartridge set 125	Cartridge set 250
LGWA 2	High load, extreme pressure, wide temperature range	TLSD 125/WA2	TLSD 250/WA2	LGWA 2/SD125	LGWA 2/SD250
LGEM 2	High viscosity bearing grease with solid lubricants	TLSD 125/EM2	TLSD 250/EM2	LGEM 2/SD125	LGEM 2/SD250
LGHB 2	High load, high temperature, high viscosity	TLSD 125/HB2	TLSD 250/HB2	LGHB 2/SD125	LGHB 2/SD250
LGHQ 2	High performance, high temperature	TLSD 125/HQ2	TLSD 250/HQ2	LGHQ 2/SD125	LGHQ 2/SD250
LGFG 2	General purpose food grade (NSF H1)	TLSD 125/FG2	TLSD 250/FG2	LGFG 2/SD125	LGFG 2/SD250
LGFQ 2	High load and wide temperature food grade (NSF H1)	–	–	LGFQ 2/SD125	LGFQ 2/SD250
Chain oils					
LHMT 68	Medium temperature oil	TLSD 125/HMT68 [1]	TLSD 250/HMT68 [1]	LHMT 68/SD125 [2]	LHMT 68/SD250 [2]
LFFM 100	General purpose food grade (NSF H1)	–	–	LFFM 100/SD125 [2]	LFFM 100/SD250 [2]

[1] Includes support plate with non-return valve.
[2] Support plate with non return valve (TLSD 1-SPV) can be ordered separately.

Technical data

Designation	TLSD 125/... and TLSD 250/...
Grease capacity	
TLSD 125	125 ml *(4.2 US fl. oz)*
TLSD 250	250 ml *(8.5 US fl. oz)*
Emptying time	User adjustable: 1, 2, 3, 4, 6, 8, 9, 10 and 12 months
Lowest grease purge	
TLSD 125	0,3 ml *(0.01 US fl. oz)* per day
TLSD 250	0,7 ml *(0.02 US fl. oz)* per day
Highest grease purge	
TLSD 125	4,1 ml *(0.13 US fl. oz)* per day
TLSD 250	8,3 ml *(0.28 US fl. oz)* per day
Ambient temperature range	
TLSD 1-BAT	0 to 50 °C *(30 to 120 °F)*
Maximum operating pressure	5 bar *(75 psi)*
Drive mechanism	Electro mechanical
Connection thread	G1/4
Maximum feed line length with:	
grease	Up to 3 meters *(10 ft)* [1]
oil	Up to 5 meters *(16 ft)*

LED status indicators	
Green led (each 30 sec)	OK
Yellow led (each 30 sec)	Pre warning, low battery power
Yellow led (each 5 sec)	Pre warning, high back pressure
Red led (each 5 sec)	Warning, stopped on error
Red led (each 2 sec)	Warning, empty cartridge
Protection class assembled lubricator	IP 65
Battery pack	
TLSD 1-BAT	4,5 V 2,7 Ah/Alkaline manganese
Recommended storage temperature	20 °C *(70 °F)*
Storage life of lubricator	3 years [2] (2 years for food grade lubricants and oils)
Total weight (incl. packaging)	
TLSD 125	635 g *(22.5 oz)*
TLSD 250	800 g *(28.2 oz)*

[1] The maximum feed line length is dependent on ambient temperature, grease type and back pressure created by the application.
[2] Maximum storage life is 3 years from production date, which is printed on the side of the canister. The canister and battery pack may be used at 12 month setting even if activated 3 years from production date.

SKF SYSTEM 24

Cabled single point automatic lubricator

TLSD series

The Cabled single point automatic lubricator is based on the proven single point automatic lubricator TLSD series. Main differentiators are the direct power supply from the machine's control panel and the wired signal function towards the machine's PLC.

Cabled single point automatic lubricators can be set to help ensure that the correct quantity of lubricant is delivered over a set time period and when the machine is running. Because of being powered from an external power supply, it can be switched on and off when necessary. This allows improved accuracy of the amount of lubricant supplied compared to traditional manual re-lubrication techniques. The lubricator's output signals can be used and stored within the equipment's PLC. The Cabled single point automatic lubricator has been developed for applications which are not running continuously.

- Possibility to lubricate only when the equipment is running
- Control and monitoring through machine PLC connection
- Suitable for both direct and remote installation
- Direct power supply
- Temperature independent dispense rate
- Maximum discharge pressure of 5 bar *(75 psi)* over the whole dispensing period
- Dispense rate available in various settings
- Red-yellow-green LEDs indicate the lubricator's status
- Reduce the service visits
- Cartridges filled with SKF lubricants especially developed for bearing applications
- Transparent cartridge reservoir allows visual inspection

Typical applications

- Critical applications where extreme reliability and additional monitoring is required
- Industrial equipment
- Elevators
- Compressors

SKF DialSet (skf.com/dialset) helps to calculate the correct dispense rate.

Multiple accessories are available for TLSD lubricators. More information can be found on pages 176-177.

Drive unit - TLSD 1-DK

Top part with electric drive and time setting wheel. Supplied with cable, plastic cap and support plate for grease lubrication (TLSD 1-SP).

Cartridge - e.g. LGWA 2/SD125

Replaceable cartridge filled with 125 ml or 250 ml of SKF grease or oil. Cartridges are to be ordered seperately.

Support plate

TLSD 1-SP is the support plate for grease lubrication.
TLSD 1-SPV is the support plate with integrated non-return valve for oil lubrication and can be ordered seperately.

Ordering details - Cartridges

Grease	Description	Cartridge 125	Cartridge 250
LGWA 2	High load, extreme pressure, wide temperature range	LGWA 2/SD125	LGWA 2/SD250
LGEM 2	High viscosity bearing grease with solid lubricants	LGEM 2/SD125	LGEM 2/SD250
LGHB 2	High load, high temperature, high viscosity	LGHB 2/SD125	LGHB 2/SD250
LGHQ 2	High performance, high temperature	LGHQ 2/SD125	LGHQ 2/SD250
LGFG 2	General purpose food grade (NSF H1)	LGFG 2/SD125	LGFG 2/SD250
LGFQ 2	High load and wide temperature food grade (NSF H1)	LGFQ 2/SD125	LGFQ 2/SD250
Chain oils			
LHMT 68	Medium temperature oil	LHMT 68/SD125 [1]	LHMT 68/SD250 [1]
LFFM 100	General purpose food grade (NSF H1)	LFFM 100/SD125 [1]	LFFM 100/SD250 [1]

Ordering details - Components

Designation	Description
TLSD 1-DK	Cabled drive-unit
TLSD 1-SP	Support plate (suplied with TLSD 1-DK)
TLSD 1-SPV	Support plate with integrated non-return valve
.../SD125 .../SD250	Cartridge filled with SKF bearing grease or chain oil (see table to the left)

[1] Support plate with non return valve (TLSD 1-SPV) can be ordered separately.

Technical data

Product	Cabled automatic lubricator TLSD series
Grease capacity	
.../SD125	125 ml *(4.2 US fl. oz)*
.../SD250	250 ml *(8.5 US fl. oz)*
Emptying time	User adjustable: 1, 2, 3, 4, 6, 8, 9, 10 and 12 months
Lowest grease purge	
.../SD125	0.3 ml *(0.01 US fl. oz)* per day
.../SD250	0.7 ml *(0.02 US fl. oz)* per day
Highest grease purge	
.../SD125	4.1 ml *(0.13 US fl. oz)* per day
.../SD250	8.3 ml *(0.28 US fl. oz)* per day
Ambient temperature range	-20 to 50 °C *(-4 to 122 °F)*
Maximum operating pressure	5 bar *(75 psi)*
Drive mechanism	Electro mechanical
Connection thread	G1/4
Maximum feed line length with:	
grease	Up to 3 meters *(10 ft)* [1]
oil	Up to 5 meters *(16 ft)*

LED status indicators	
Green led (each 3 sec)	OK
Yellow led (each 1 sec)	Warning, high back pressure
Yellow led (each 3 sec)	Warning, cartridge almost empty (3% left)
Red led (each 1 sec)	Alarm, high back pressure
Red led (each 3 sec)	Alarm, empty cartridge
Red led (each 5 sec)	Alarm, error in lubricator
IP rating	IP 41
Total weight (incl. packaging)	
Drive unit TLSD 1-DK	355 g *(12.5 oz)*
Power supply	7 V - 35 V / up to 1.5A
Cable length	550 mm *(21.7 in)*
Cable diameter	4.8 mm *(0.2 in)* max.
Wire size	24 AWG 7/32 (0.25 mm^2)
Wire colours	
White/Brown	+Positive (VCC) / -Negative (GND)
Green/Yellow	Relay contact 1 (NO) / Relay contact 2 (NO)

[1] The maximum feed line length is dependent on ambient temperature, grease type and back pressure created by the application.

Electro-mechanical single point automatic lubricators

TLMR series

The SKF Automatic Lubricant Dispenser – TLMR – is a single point automatic lubricator designed to supply grease to a single lubrication point. With a relatively high pressure of 30 bars, this lubricator can operate at long distances providing optimum results with difficult-to-reach and unsafe lubrication locations. With a wide temperature range and robust design, the TLMR lubricator is suitable for operating conditions with various levels of temperature and vibration.

- Filled with high quality SKF greases
- Temperature independent dispense rate
- Extended time setting up to 24 months
- Maximum discharge pressure of 30 bar over the whole dispensing period
- Available in two versions: TLMR 101 powered by batteries (standard Lithium AA type) and TLMR 201 powered by 12–24 V DC
- Available with non-refillable cartridges in two sizes: 120 and 380 ml

Typical applications

- Applications requiring high lubricant consumption
- Applications experiencing high vibration in operation
- Excellent water and dust protection makes TLMR suitable for general machinery applications and food processing machinery
- Excellent high temperature performance makes TLMR suitable for engine rooms and hot fan applications
- Excellent low temperature performance makes TLMR suitable for wind turbine applications

SKF DialSet (skf.com/dialset) helps to calculate the correct dispense rate.

Multiple accessories are available for TLMR lubricators.
More information can be found on pages 176-177.

Each TLMR is supplied with a strong mounting bracket as standard. The bracket enables the TLMR to be easily mounted on a flat surface.

For ease of use, cartridges are easily exchanged by simply screwing them into the lubricator.

Ordering details

Grease	Description	TLMR 101 refill sets (cartridge and battery) 120 ml	TLMR 101 refill sets (cartridge and battery) 380 ml	TLMR 201 cartridges 120 ml	TLMR 201 cartridges 380 ml
LGWA 2	High load, extreme pressure, wide temperature range bearing grease	LGWA 2/MR120B	LGWA 2/MR380B	LGWA 2/MR120	LGWA 2/MR380
LGEV 2	Extremely high viscosity bearing grease with solid lubricants	–	LGEV 2/MR380B	–	LGEV 2/MR380
LGHB 2	High load, high temperature, high viscosity bearing grease	–	LGHB 2/MR380B	–	LGHB 2/MR380
LGHQ 2	High performance, high temperature bearing grease	–	LGHQ 2/MR380B	–	LGHQ 2/MR380
LGWM 1	Extreme pressure, low temperature bearing grease	–	LGWM 1/MR380B	–	LGWM 1/MR380
LGWM 2	High load, wide temperature range bearing grease	–	LGWM 2/MR380B	–	LGWM 2/MR380
LGEP 2	Extreme pressure bearing grease	–	LGEP 2/MR380B	–	LGEP 2/MR380
LGMT 3	All purpose industrial and automotive bearinggrease	–	LGMT 3/MR380B	–	LGMT 3/MR380

Complete sets	
TLMR 101/38WA2	Lubricator with 380 ml cartridge filled with LGWA 2 grease, powered by batteries.
TLMR 201/38WA2	Lubricator with 380 ml cartridge filled with LGWA 2 grease, powered by 12-24 V DC

TLMR pump	
TLMR 101	Lubricator powered by batteries
TLMR 201 [1]	Lubricator powered by 12-24 V DC

Technical data

Designation	TLMR 101 and TLMR 201
Grease capacity	120 ml *(4.1 US fl. oz)* 380 ml *(12.8 US fl. oz)*
Emptying time	User adjustable: 1,2,3,6,9,12, 18, 24 months or purge
Lowest setting	
120 ml cartridge	0,16 ml *(0.005 US fl. oz)* per day
380 ml cartridge	0,5 ml *(0.016 US fl. oz)* per day
Highest setting	
120 ml cartridge	3,9 ml *(0.13 US fl. oz)* per day
380 ml cartridge	12,5 ml *(0.42 US fl. oz)* per day
Purge	31 ml *(1 US fl. oz)* per hour
Ambient temperature range	–25 to +70 °C *(–13 to +158 °F)*
Maximum operating pressure	30 bar *(435 psi)*
Drive mechanism	Electro mechanical
Connection thread	G1/4 female
Maximum feed line length [2]	Up to 5 meters *(16 ft)*
LED status indicators	
Green LED (every 8 sec)	OK
Green and red LED (every 8 sec)	Almost empty
Red LED (every 8 sec)	Error
Protection class	
DIN EN 60529	IP 67
DIN 40 050 Teil 9	IP 6k9k
Power	
TLMR 101	4 AA Lithium batteries
TLMR 201	12 -24 Volt DC via M12-A connection

[1] TLMR 201 is powered by a M12-A plug (TLMR 201-1) which has to be ordered separately
[2] The maximum feed line length is dependent on ambient temperature, grease type and back pressure created by the application.