

SKF lubricants

Selecting a grease can be a delicate process. SKF has developed several tools in order to facilitate the selection of the most suitable lubricant. The wide range of tools available includes those from easy-to-use application driven tables to advanced software allowing for grease selection based upon detailed working conditions.

The basic bearing grease selection chart provides you with quick suggestions on the most commonly used greases in typical applications.



SKF bearing grease selection chart

Grease	Description	Application examples	Temperature range ¹⁾		Temp.	Speed
			LTL	HTPL		
LGMT 2	General purpose industrial and automotive	Automotive wheel bearings Conveyors and fans Small electric motors	-30 °C (-20 °F)	120 °C (250 °F)	M	M
LGMT 3	General purpose industrial and automotive	Bearings with d>100 mm Vertical shaft or outer bearing ring rotation Car, truck and trailer wheel bearings	-30 °C (-20 °F)	120 °C (250 °F)	M	M
LGEP 2	Extreme pressure	Forming and press section of paper mills Work roll bearings in steel industry Heavy machinery, vibrating screens	-20 °C (-5 °F)	110 °C (230 °F)	M	L to M
LGWA 2	Wide temperature ⁴⁾ , extreme pressure	Wheel bearings in cars, trailers and trucks Washing machines Electric motors	-30 °C (-20 °F)	140 °C (285 °F)	M to H	L to M
LGFP 2	Food compatible	Food processing equipment Wrapping machines Bottling machines	-20 °C (-5 °F)	110 °C (230 °F)	M	M
LGGB 2	Biodegradable, low toxicity ³⁾	Agricultural and forestry equipment Construction and earthmoving equipment Water treatment and irrigation	-40 °C (-40 °F)	90 °C (195 °F)	L to M	L to M
LGBB 2	Wind turbine blade and yaw bearing grease	Wind turbine blade and yaw slewing bearings	-40 °C (-40 °F)	120 °C (250 °F)	L to M	VL
LGLT 2	Low temperature, extremely high speed	Textile and machine tool spindles Small electric motors and robots Printing cylinders	-50 °C (-60 °F)	110 °C (230 °F)	L to M	M to EH
LGWM 1	Extreme pressure, low temperature	Main shaft of wind turbines Centralised lubrication systems Spherical roller thrust bearing applications	-30 °C (-20 °F)	110 °C (230 °F)	L to M	L to M
LGWM 2	High load, wide temperature	Main shaft of wind turbines Heavy duty off road or marine applications Snow exposed applications	-40 °C (-40 °F)	110 °C (230 °F)	L to M	L to M
LGEM 2	High viscosity plus solid lubricants	Jaw crushers Construction machinery Vibrating machinery	-20 °C (-5 °F)	120 °C (250 °F)	M	VL
LGEV 2	Extremely high viscosity with solid lubricants	Trunnion bearings Support and thrust rollers on rotary kilns and dryers Slewing ring bearings	-10 °C (15 °F)	120 °C (250 °F)	M	VL
LGHB 2	EP high viscosity, high temperature ⁵⁾	Steel on steel plain bearings Dryer section of paper mills Work roll bearings and continuous casting in steel industry Sealed spherical roller bearings up to 150 °C (300 °F)	-20 °C (-5 °F)	150 °C (300 °F)	M to H	VL to M
LGHP 2	High performance polyurea grease	Electric motors Fans, even at high speed High speed ball bearings at medium and high temperatures	-40 °C (-40 °F)	150 °C (300 °F)	M to H	M to H
LGET 2	Extreme temperature	Bakery equipment (ovens) Wafer baking machines Textile dryers	-40 °C (-40 °F)	260 °C (500 °F)	VH	L to M

1) LTL = Low Temperature Limit
HTPL = High Temperature Performance Limit
2) mm²/s at 40 °C (105 °F) = cSt.

3) LGGB 2 can withstand peak temperatures of 120 °C (250 °F)
4) LGWA 2 can withstand peak temperatures of 220 °C (430 °F)
5) LGHB 2 can withstand peak temperatures of 200 °C (390 °F)

Load	Thickener / Base Oil	NLGI	Base oil viscosity 2)	Vertical shaft	Fast outer ring rotation	Oscillating movements	Severe Vibrations	Shock load or frequent start up	Rust inhibiting properties	
L to M	Lithium soap / mineral oil	2	110	●			+		+	Wide applications greases
L to M	Lithium soap / mineral oil	3	120	+	●		+		●	
H	Lithium soap / mineral oil	2	200	●		●	+	+	+	
L to H	Lithium complex soap / mineral oil	2	185	●	●	●	●	+	+	
L to M	Aluminium complex / medical white oil	2	130	●					+	Special requirements
M to H	Lithium-calcium soap / synthetic ester oil	2	110	●		+	+	+	●	
M to H	Lithium complex soap / synthetic PAO oil	2	68			+	+	+	+	
L	Lithium soap / synthetic PAO oil	2	18	●				●	●	Low temperatures
H	Lithium soap / mineral oil	1	200			+		+	+	
L to H	Complex calcium sulphate / synthetic PAO oil / mineral oil	2	80	●	●	+	+	+	+	High loads
H to VH	Lithium soap / mineral oil	2	500	●		+	+	+	+	
H to VH	Lithium-calcium soap / mineral oil	2	1020	●		+	+	+	+	
L to VH	Complex calcium sulphate / mineral oil	2	400	●	+	+	+	+	+	High temperatures
L to M	Di-urea / mineral oil	2 to 3	96	+			●	●	+	
H to VH	PTFE / synthetic fluorinated polyether oil	2	400	●	+	+	●	●	●	

● = Suitable + = Recommended

Basic bearing grease selection

Generally use if:

Speed = M, Temperature = M and Load = M

LGMT 2

General purpose

Unless:

Expected bearing temperature continuously >100 °C (210 °F)

LGHP 2

High temperature

Expected bearing temperature continuously >150 °C (300 °F), demands for radiation resistance

LGET 2

Extremely high temperature

Low ambient -50 °C (-60 °F), expected bearing temperature <50 °C (120 °F)

LGLT 2

Low temperature

Shock loads, heavy loads, frequent start-up / shut-down

LGEP 2

High load

Food processing industry

LGFP 2

Food processing

Biodegradable, demands for low toxicity

LGGB 2

Biodegradable

Note: – For areas with relatively high ambient temperatures, use LGMT 3 instead of LGMT 2
– For special operating conditions, refer to the SKF bearing grease selection chart

With additional information like speed, temperature, and load conditions, LubeSelect for SKF greases is the easiest way to select the right grease.

For additional information, visit www.apptitudeexchange.com.

Additionally, the SKF bearing grease selection chart provides you with a complete overview of SKF greases. The chart includes the main selection parameters, such as temperature, speed and load, as well as basic additional performance information.

Bearing operating parameters

Temperature

L	= Low	<50 °C	(120 °F)
M	= Medium	50 to 100 °C	(120 to 230 °F)
H	= High	>100 °C	(210 °F)
EH	= Extremely high	>150 °C	(300 °F)

Load

VH	= Very high	C/P <2
H	= High	C/P ~4
M	= Medium	C/P ~8
L	= Low	C/P ≥15

C/P = Load ratio C = basic dynamic load rating, kN
P = equivalent dynamic bearing load, kN

Speed for ball bearings

EH	= Extremely high	n d _m over 700 000
VH	= Very high	n d _m up to 700 000
H	= High	n d _m up to 500 000
M	= Medium	n d _m up to 300 000
L	= Low	n d _m below 100 000

for roller bearings

Speed	SRB/TRB/CARB	CRB
H	= High	n d _m over 210 000
M	= Medium	n d _m up to 210 000
L	= Low	n d _m up to 75 000
VL	= Very low	n d _m below 30 000

n d_m = rotational speed, r/min x 0,5 (D+d), mm

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