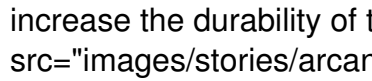
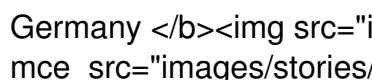
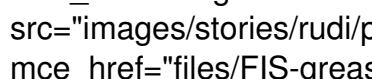


Bearings are reliable-longlife machine elements. The most common reason of disfunction is the insufficient or unproper greasing of the ball bearings. The secure and proper flow of grease is extremely important for their, and other machine elements functionality.

Greases are used where a mechanism can only be lubricated infrequently and where a lubricating oil would not stay in position. They also act as valuable sealants to prevent ingress of water and dust. Grease-lubricated bearings have greater friction characteristics due to their high viscosity. Under shear, the viscosity drops to give the effect of an oil-lubricated bearing of approximately the same viscosity as the base oil used in the grease. Lithium-based greases are the most commonly used; sodium and lithium based greases have higher melting point (dropping point) than calcium-based greases but are not resistant to the action of water. Lithium-based grease has a dropping point at 190 °C to 220 °C (350 °F to 400 °F). However the maximum usable temperature for Lithium-based grease is 120 °C.

Grease used for axles are composed of a compound of fatty oils to which tar, graphite, or mica is added to increase the durability of the grease and give it a better surface.



**Greases from FAG, Germany**


[download as PDF file](files/FIS-grease.pdf)

<b>Name</b>	<b>Operating Temperature</b>	<b>Technical specification</b>	<b>Thickener</b>	<b>Base oil</b>	<b>Base oil viscosity at 40 °C mm<sup>2</sup>/s</b>
MULTI2	-30...+140	Universal grease for ball bearings	Lithium soap	Mineral oil	100
MULTI3	-30...+140	Universal grease for ball bearings	Lithium soap	Mineral oil	80
MULTITOP	-40...+150	Universal grease for ball and roller bearings	Lithium soap	Mineral oil with EP additives	85
LOAD220	-20...+140	Special grease for ball and roller bearings	Lithium soap	Mineral oil + ester	85

vehicles at high loads, large speed range, high degree of humidity	Lithium calcium soap with EP additives Mineral oil ISO VG 220	LOAD400	-25...+140	Special grease for ball and roller bearings in mining machines, construction machines at extreme loads, medium temperature medium speeds	Lithium calcium soap with EP additives Mineral oil 400	LOAD1000	-20...+140	Special grease for ball and roller bearings in mining machines, construction machines, preferably for shock loads and large bearings at extreme loads, medium temperatures, low speeds	Lithium calcium soap with EP additives Mineral oil ISO VG 1000	TEMP90	-40...+160	Special grease for ball and roller bearings in couplings, electric motors, motor vehicles at high temperatures, high loads	Calcium polyurea w EP additive PAO oil 130	TEMP110	-40 160	Special grease for ball and roller bearings in electric machines, motor vehicles at high temperatures, high speeds	Lithium complex soap Ester oil ISO VG 150	TEMP200	-40...+260	Special grease for ball and roller bearing in track rollers in baking machines, piston pins in compressors, kiln trucks, chem. plants at extremely high temp., chemically aggressive environments	PTFE Fluor. poly. oil 400	SPEED2.6	-50...+120	Special grease for ball bearings in machine tools, instruments at extremely high speeds, low temperatures	Polyurea PAO/ester oil ISO VG 22	FOOD2	-30..+120	Special grease for ball and roller bearings in applications with food contact	Aluminium complex soap White oil 192
---	--	---------	------------	---	--	----------	------------	---	---	--------	------------	---	--	---------	------------	--	---	---------	------------	--	---------------------------------	----------	------------	--	---	-------	-----------	--	--

**Greases from Stealit, Bulgaria**

	
<b>Name</b>	<b>Operating Temperature</b>
<b>Technical specification</b>	<b>Thickener</b>
<b>Base oil</b>	<b>Base oil viscosity at 40 °C mm<sup>2</sup>/s</b>
<b>Stock number and retail package</b>	<b>Litol 24</b>
<b>-25...+120</b>	<b>Universal grease for ball bearings. Recommended for normal loads, and general purpose.</b>
<b>110201-400g</b>	<b>110202-800g</b>
<b>110203-3kg</b>	<b>110204-9.5kg</b>
<b>Calcium</b>	<b>-20...+60</b>
<b>Recommended for low and normal loads, low speeds, regular anti friction grease for medium temperatures and loads</b>	<b>calcium soap, Mineral oil</b>
<b>32 - 46</b>	<b>110205-400g</b>
<b>110206-800g</b>	<b>110207-3kg</b>
<b>110208-9.5kg</b>	<b>Graphite</b>

-20...+60	<p>Recommended for low and normal loads, high and low speeds, for greasing overload details in normal temperatures.</p>
calcium soap, Mineral oil, 46	<p>110209-400g 110210-800g 110211-3kg 110212-9.5kg</p>
Litel 2,3	<p>-30...+130</p> <p>Recommended for normal loads, high speeds, for bearings and details working in high rotating speeds and heavy loads.</p>
Lithium soap, Mineral oil, 150	<p>110213-3kg 2 110214-9.5kg 2 110215-3kg 3 110216-9.5kg 3</p>
Litel U-3	<p>-30...+120</p> <p>Recommended for heavy loads and high speeds for all kind of bearings and hinges into the vehicle.</p>
Lithium soap, Mineral oil, 90	<p>110217-400g 110218-800g 110219-3kg 110220-9.5kg</p>
Litel MS	<p>-25...+120</p> <p>Recommended for normal and heavy loads, good for high speeds for bearings and joints for long-term use in heavy loads and usage.</p>
Lithium soap, Mineral oil with with molybdenite disulfide, 130	<p>110221-300g</p>
Litel U-00	<p>-20...+120</p> <p>Recommended for normal and heavy loads, good for central greasing of heavy trucks.</p>
Lithium soap, Mineral oil, 220	<p>110222-3kg 110291-9.5kg</p>