Thickener Characteristics

Thickener Type	Maximum Temperature for Prolonged Use (0°C)	Effect of Water	Resistance to Softening	Principal Uses
Calcium Soap	55-65	Highly Resistant	Fair to Good	Chassis Greases General Purpose Industrial Greases
Calcium Hydroxystearate	80-90	Highly Resistant	Excellent	Multipurpose grease
Calcium Complex	120-150	Highly Resistant	Excellent	Industrial grease
Sodium Soap	120-140	Susceptible	Fair	Ball & Roller Bearings, Electric Motors
Sodium Complex	150-175	Highly Resistant	Excellent	Multipurpose Industrial grease
Aluminium Complex	110-135	Resistant	Good	Industrial grease
Lithium Soap	110-130	Resistant	Fair	Multipurpose Automotive and Industrial grease
Lithium Complex	150-175	Resistant	Excellent	Multipurpose Automotive and Industrial grease
Polyurea	150-175	Highly Resistant	Fair to Excellent	Multipurpose Automotive and Industrial grease
Bentone	140-160	Resistant	Fair	General Purpose grease for high temperature bearings where re-lubrication is frequent

Fluid Characteristics

	Lubricity	Low Temperature Performance	Volatility	Aggressivity Resistance on Standard Joint	Oxidation	Average Cost
Naphthenic Mineral Oils	Good	Good	Good	Average to Poor	Average to Poor	1,2
Paraffinic Mineral Oils	Good	Average to Poor	Good	Good	Good	1
Alkylates	Average	Excellent to Good	Average	Good to Average	Good to Average	2,5
Polybutenes	Average	Good to Average	Average	Good	Average	3
Polyalpha olefins	Good	Excellent	Excellent	Good	Excellent	5 to 10
Esters and di-Esters	Excellent	Excellent	Excellent	Average to Poor	Excellent	8 to 15
Polyglycols	Excellent	Excellent	Average	Poor	Good	5
Silicones	Poor	Excellent	Excellent	Good	Excellent	25 to 50

Grease Compatibility

If possible, bearings should be thoroughly cleaned or purged prior to changing grease types. If this is not possible, any added grease must be compatible with any residual grease already present, otherwise softening, or in extreme cases, a complete breakdown of the grease may occur.

	Aluminium Complex	Barium	Calcium	Calcium 12-Hydroxy Stearate	Calcium Complex	Clay	Lithium	Lithium 12-Hydroxy Stearate	Lithium Complex	Polyurea
Aluminium Complex	X	I	I	C	I	I	I	I	C	I
Barium	I	X	I	C	I	I	I	I	I	I
Calcium	I	I	X	C	I	C	C	B	C	I
Calcium12-Hydroxy Stearate	C	C	C	X	B	C	C	C	C	I
Calcium Complex	I	I	I	B	X	I	I	I	C	C
Clay	I	I	C	C	I	X	I	I	I	I
Lithium	I	I	C	C	I	I	X	C	C	I
Lithium 12-Hydroxy Stearate	I	I	B	C	I	I	C	X	C	I
Lithium Complex	C	I	C	C	C	I	C	C	X	I
Polyurea	I	I	I	I	C	I	I	I	I	X

C = Compatible, I = Incompatible, B = Borderline

Base Fluid Compatibility

Base Fluid	Mineral Hydrocarbon	Synthetic	Polyglycol	Ester	Silicone
Mineral Hydrocarbon	C	C	I	B	I
Synthetic	C	C	I	B	I
Polyglycol	I	I	C	I	I
Ester	B	B	I	C	I
Silicone	I	I	I	I	C

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OIL CARE

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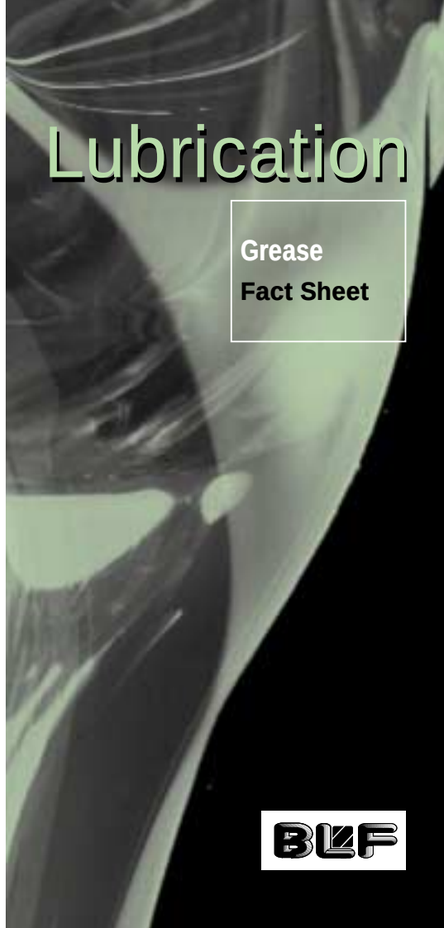

Lubrication

Grease
Fact Sheet

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