EXTEND THE LIFE
OF YOUR BEARINGS

CHOOSE THE RIGHT GREASE FOR YOUR BEARINGS:

NTN-SNR SIMPLIFIES YOUR CHOICE WITH A RANGE OF PROFESSIONAL GREASES

UNIVERSAL
Multi purpose

Your application conforms to conditions of general use. Your bearings work under normal loads.

HEAVY DUTY
High load

Your application can cause high stresses in the bearing. Your bearings work under very high loads.

VIB
Vibrations & shocks

Your application generates a high level of shock load or vibration. Your bearings are subjected to high accelerations.

HIGH TEMP
High temperature

Your application is a hot environment.
Your bearings operate continually above 130°C.

> EXTEND THE LIFE OF YOUR BEARINGS

UNIVERSAL Multi purpose

Grease for general use, for automotive and industrial applications

Advantages : Good performance in the presence of water, excellent protection against wear and corrosion.

Typical applications : Agricultural equipment, washing machines, materials handling equipment, general machinery, low power electric motors, automobile wheel bearings, small tools…

Temperature range : -25 to +140 °C

HEAVY DUTY High load

Extreme pressure, multi-service grease, designed for intensive applications in heavy industry: steel industry, construction, transport, etc.

Advantages : Excellent performance under very high loads, at high and low speed, good performance in the presence of water, excellent protection against wear and corrosion.

Typical applications : High power electric motors, conveyors, lifting equipment, lorry wheel hubs, water pumps, presses...

Temperature range : -25 to +140 °C

VIB Vibrations & shocks

Provides perfect lubrication to bearings subject to high levels of vibration or shocks loads. Recommended for quarries, cement plants, civil and agricultural works, and high-load applications in a humid environment: paper mills, excavation, etc.

Advantages: Excellent resistance to shocks, high levels of vibration and heavy loads, excellent water-resistance that guarantees long life.

Typical applications: Bucket spindles, grinders, crushers, vibrating screens, washing machines, industrial fans...

Temperature range: -20°C to +140°C

HIGH TEMP High temperature

The ideal solution for long-life, high-temperature lubrication up to +150°C. Accepts occasional peaks up to +175°C

Advantages: Extreme long-term, high temperature performance, excellent protection against wear and corrosion, suitable for ball or roller bearings, suitable for horizontal and vertical axes.

Typical applications: Textile machines, paper converting machinery, heater, dryer fans, tension pulleys, automobile water pumps...

Wide temperature range: -40°C to +160°C

Experts & Tools With You

- assists with bearing installation and maintenance: advice on lubrication, provide support for your bearing application, technical training, maintenance audits.
- makes your work simpler and more reliable thanks to a range of specialised tools: extractors, separators, bearing heaters, spanners, hydraulic nuts and pumps, thermometers, etc.

For more information
about our entire offer, contact
NTN-SNR Experts & Tools on our Website
www.ntn-snr.com

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NTN SNR

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TECHNICAL DATA SHEET GREASE: LUB UNIVERSAL

Multi purpose industrial and automotive bearing grease

Advantages :

- Very good water resistance
- Excellent protection against wear and corrosion
- Good mechanical stability even at high speed
- Wide temperature range

Characteristics	Method	Unit	LUB UNIVERSAL
Temperature range			**-25 °C / +140 °C**
Colour			**Amber**
Texture			**Smooth**
Density	**ISO 2811**	**g/cm^3**	**0,89**
Worked penetration 60 strokes	**ISO 2137**	**10^{-1} mm**	**265/295**
NLGI Grade	**ISO 6743**		**2**
Speed range		**NDm***	**≤ 600 000**
Thickener type			**Lithium**
Base oil type			**Mineral**
Base oil viscosity at 40°C	**ISO 3104**	**cSt**	**115**
Base oil viscosity at 100°C	**ISO 3104**	**cSt**	**11**
Dropping point	**ISO 2176**	**°C**	**> 190**
Compatibility to thermoplastics	**SNR Test**		**Ok**
Compatibility to synthetic elastomers	**SNR Test**		**Ok**

*): Speed factor: Speed in rotations / min X Average diameter of the bearing in mm

Typical applications: Large variety of applications

- Agricultural equipment
- Washing machines
- Materials handling equipment
- General machinery
- Low power electric motors
- Automobile wheel bearings
- Small tools …

Edition : 19.01.2010

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TECHNICAL DATA SHEET: LUB HIGH SPEED +

Low temperature grease for high speed application

HIGH SPEED + is a partial synthetic special grease based on lithium-calcium soap.
Special additives protect against aging, wear and corrosion and optimize this high-performance lubricating grease.

Advantages

- Faster running-in of spindle bearings
- Very good resistance to water protects bearings against premature failure, thus helping to minimize maintenance costs
- Low heating-up of bearings due to low lubricant friction
- Special synthetic base oils giving a wide service temperature range

Characteristics	Method	Units	LUB HIGH SPEED +
Temperature range			-45 °C / +120 °C
Colour			Light Brown
Structure			Homogenous
Density @ +20°C			0,93
Grade NLGI	ISO 6743		2
Speed factor		NDm	≤ 1800000
Nature of the thickener			Complex Lithium and Calcium Soap
Nature of the base oil			SHC/Ester oil
Base oil viscosity at 40°C	ISO 3104	cSt	25
Base oil viscosity at 100°C	ISO 3104	cSt	5.8
Dropping point	ISO 2176	°C	> 180
Corrosion protection	DIN 51802		0-0
Compatibility to synthetic elastomers	SNR Test		*

*** To verify for the elastomer under application.**

Applications :

Recommended for milling, grinding, turning and drilling spindles running at high speeds (textile machine, Machine tool, woodworking machinery)
Thanks to the thermal stability and the good ageing resistance of the base oil, the grease permits also application in motor-powered spindle bearings.

N B : NDm : Speed factor : Speed of rotation in rotations / min X Average diameter of the bearing in mm.

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TECHNICAL DATA SHEET GREASE: LUB HIGH TEMP

Grease for long-life, high-temperature lubrication up to +160°C.
Accepts occasional peaks up to +175°C.

Advantages :

- Extreme long-term, high temperature performance
- Excellent protection against wear and corrosion
- Suitable for ball or roller bearings
- Suitable for horizontal and vertical axes

Characteristics	Method	Unit	LUB HIGH TEMP
Temperature range			**-40 °C / +160 °C**
Colour			**Light brown**
Texture			**Smooth**
Density	**ISO 2811**	**g/cm^3**	**0,88**
Worked penetration 60 strokes	**ISO 2137**	**10^{-1} mm**	**265/295**
NLGI Grade	**ISO 6743**		**2**
Speed range		**NDm***	**≤ 500 000**
Thickener type			**Polyurea**
Base oil type			**Semi Synthetic**
Base oil viscosity at 40°C	**ISO 3104**	**cSt**	**160**
Base oil viscosity at 100°C	**ISO 3104**	**cSt**	**18**
Dropping point	**ISO 2176**	**°C**	**> 250**
Compatibility to thermoplastics	**SNR Test**		**Ok**
Compatibility to synthetic elastomers	**SNR Test**		******

*: Speed factor: Speed in rotations / min X Average diameter of the bearing in mm

**: To verify with elastomer of the application

Typical applications:

- Textile machines
- Paper converting machinery
- Heater, dryer fans
- Tension pulleys, automobile water pumps

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TECHNICAL DATA SHEET GREASE: HEAVY DUTY

Multi-service grease with extreme pressure additives, designed for intensive applications in heavy industry

Advantages :

- Excellent performance under very high loads, at high and low speed
- Suitable for ball and roller bearings
- Very good water resistance
- Excellent protection against wear and corrosion
- Good mechanical stability

Characteristics	Method	Unit	LUB HEAVY DUTY
Temperature range			**-25 °C / +140 °C**
Colour			**Amber**
Texture			**Smooth**
Density	**ISO 2811**	**g/cm^3**	**0,89**
Worked penetration 60 strokes	**ISO 2137**	**10^{-1} mm**	**265/295**
NLGI Grade	**ISO 6743**		**2**
Speed range		**NDm***	**≤ 600 000**
Thickener type			**Lithium**
Base oil type			**Mineral**
Base oil viscosity at 40°C	**ISO 3104**	**cSt**	**115**
Base oil viscosity at 100°C	**ISO 3104**	**cSt**	**11**
Dropping point	**ISO 2176**	**°C**	**> 190**
Compatibility to thermoplastics	**SNR Test**		**Ok**
Compatibility to synthetic elastomers	**SNR Test**		**Ok**

*): Speed factor: Speed in rotations / min X Average diameter of the bearing in mm

Typical applications:

Intensive applications in heavy industry: steel industry, construction, transport, etc.
Examples: Conveyors, lifting equipment, lorry wheel hubs, high power electric motor, water pumps, presses, etc.

Edition : 19.01.2010

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TECHNICAL DATA SHEET GREASE: LUB VIB

Grease dedicated to bearings subject to high levels of vibration or shocks loads. It is also recommended for high loads applications in humid environment.

Advantages :

- Extremely good adhesion
- Excellent resistance to shocks, high levels of vibration and heavy loads
- Excellent water-resistance that guarantees long life
- Excellent protection against corrosion

Characteristics	Method	Unit	LUB VIB
Temperature range			**-20 °C / +140 °C**
Colour			**Blonde**
Texture			**Lisse**
Density	**ISO 2811**	**g/cm^3**	**0,90**
Worked penetration 60 strokes	**ISO 2137**	**10^{-1} mm**	**265/295**
NLGI Grade	**ISO 6743**		**2**
Speed range		**NDm***	**≤ 300 000**
Thickener type			**Lithium + Calcium**
Base oil type			**Semi Synthetic**
Base oil viscosity at 40°C	**ISO 3104**	**cSt**	**360**
Base oil viscosity at 100°C	**ISO 3104**	**cSt**	**25**
Dropping point	**ISO 2176**	**°C**	**> 190**
Compatibility to thermoplastics	**SNR Test**		**Ok**
Compatibility to synthetic elastomers	**SNR Test**		**Ok**

*): Speed factor: Speed in rotations / min X Average diameter of the bearing in mm

Typical applications:

Recommended for quarries, cement plants, civil and agricultural works, and high-load applications in a humid environment: paper mills, excavation, etc.

Examples: Bucket spindles, grinders, crushers, vibrating screens, washing machines, industrial fans, etc

Edition: 19.01.2010

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TECHNICAL DATA SHEET : LUB FOOD

Multi-purpose food compatible bearing grease

Benefits for your application :

- Multi-purpose grease
- NSF H1 registered (Meets also German food regulations (LFBG, § 31 sect.1))
- Wide service temperature range
- Protects again corrosion
- Good water resistance (also hot water)
- Resistant to many disinfectants and cleaning agents

Characteristics	Method	Unit	LUB FOOD
Temperature range			**-30 °C / +120 °C**
Colour			**Yellow**
Texture			**Homogeneous**
Density	**ISO 2811**	**g/cm^3**	**0,92**
Worked penetration 60 strokes	**ISO 2137**	**10^{-1} mm**	**265/295**
NLGI Grade	**ISO 6743**		**2**
Speed range		**NDm**	**≤ 500 000**
Thickener type			**Soap complexe Aluminium**
Base oil type			**Minérale paraffinique**
Base oil viscosity at 40°C	**ISO 3104**	**cSt**	**195**
Base oil viscosity at 100°C	**ISO 3104**	**cSt**	**22**
Dropping point	**ISO 2176**	**°C**	**> 220**
Compatibility to thermoplastics	**SNR Test**		**Ok**
Compatibility to synthetic elastomers	**SNR Test**		**Ok**

*) : NDm : speed factor : Speed of rotation in rotations / min X Average diameter of the bearing in mm.

Application :

- For food-processing and pharmaceutical industries, where incidental contact with the food product cannot be excluded.
- Suitable for the lubrication of rolling and plain bearings, lifting cylinders, joints, guide bars, guide rails, etc …

Edition : 8/10/10

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TECHNICAL DATA SHEET GREASE: LUB ULTRA HIGH TEMP

Grease for long-term, extreme high-temperature lubrication

Advantages :

Greater equipment availability and less maintenance

- For extremely high operating temperatures **up to 260°C**
- Good pressure absorption capacity
- Compatible with most plastics and elastomers
- Excellent resistance to aggressive media

Characteristics	Method	Unit	LUB ULTRA HIGH TEMP
Temperature range			**-30 °C / +260 °C**
Colour			**white**
Texture			**Fibrous**
Density	**ISO 2811**	**g/cm^3**	**1,96**
NLGI Grade	**ISO 6743**		**2**
Speed range *)		**NDm**	**≤ 300 000**
Thickener type			**PTFE**
Base oil type			**perfluoropolyether oil**
Base oil viscosity at 40°C	**ISO 3104**	**cSt**	**420**
Base oil viscosity at 100°C	**ISO 3104**	**cSt**	**40**
Dropping point)**	**ISO 2176**	**°C**	**Not measurable**

*): Speed factor: Speed in rotations / min X Average diameter of the bearing in mm

**) In accordance with DIN 2176 it is not possible to measure the drop point of these high-temperature greases (they do not melt); however, a certain degree of oil separation may occur at temperatures above approx. 170 °C.

Warning : bearing should be cleaned with a special fluoridated solvent.

Typical applications:

- conveyors
- Paper converting machinery
- plastics industry
- textile industry (dryers)
- Printing industry. (load rollers in copying machines))
- Emergency, hot fans

Before applying this grease, the bearing must be cleaned with some white spirit 180/210

Edition : 08.06.2010

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TECHNICAL DATA SHEET : CHAIN OIL

Chain oil is a synthetic high temperature chain oil for textile and plastic processing machines ensuring reliable operation even at high temperature and stress

Advantages :

- Excellent lubrication even at high operating temperatures
- Good regeneration effect on used oil
- Good viscosity temperature for safe cold starts
- Outstanding penetration properties for rapid formation of lubricant film
- Good adhesion, no throwing off
- Resistance to wear and pressure
- Little residue owing to fully synthetic constituents

Characteristics	Method	Unit	CHAIN OIL
Service temperature range*		**°C**	**-20 °C / +250 °C**
Colour			**Green clear**
Density , at 20°C, approx	**DIN 51757**	**g/cm^3**	**0,95**
Base oil type			**Ester/PAO**
Base oil viscosity at 40°C	**DIN 51562**	**cSt**	**320**
Base oil viscosity at 100°C	**DIN 51562**	**cSt**	**28**
Viscosity index, approx	**DIN ISO 2909**		**110**
Flash point, Cleveland, open cup	**ISO 2592**	**°C**	**>220**

* Service temperatures are guide values which depend on the lubricant's composition, the intended use and the application method. Lubricants change their consistency, apparent dynamic viscosity or viscosity depending on the mechano-dynamical loads, time , pressure and temperature.

Application notes : CHAIN OIL is a lubricant especially developed for the NTN-SNR Lubrication Systems. Lubrication intervals and quantities vary with chain design, type of lubrication and operating conditions. At temperatures above 180°C, you need approx.1.5 to 2 ml of oil per meter of chain and operating shift.

Application:

Roller chains, chains or clips with ball bearings, slide chains with lubrication of slide rails, chain joints and bolts, dryers, steamers.

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