



# MEHTA SPINDLE BEARINGS



Website : [www.mehtabearings.com](http://www.mehtabearings.com)



Strength doesn't come from a tough centre; it comes from roots that run deep. At Mehta Spindle Bearings, these roots begin with the strong relationship we've developed with our customers right from our first steps, two decades ago.

Mehta Spindle Bearings offer one of today's most modern and advanced engineering products designed to generate substantial operational and financial benefits for our valued customers, thus delivering our promise of better technology, any day, every day.

Over two decades, Mehta Spindle Bearings have carved a niche for themselves in the Indian Bearings market providing to all national and international brand. Mehta Spindle Bearings might be a team of professionals but together we're the power of ONE and as one team we're committed to serve the best, to the best.

Under the visionary guidance of Mr. Nipul Mehta, Mehta Spindle Bearings has realized its ability to nurture growth and reach new heights.

**Our Services includes :**



### **SERVICES:**

1. Mounting of super precision bearings for machine tool spindles and repairing of machine tool spindles.
2. Being an authorized importer and distributor, Mehta Spindle Bearings can provide you with quality bearings at compatible rates in scheduled time.
3. Mehta Spindle Bearings value customers who care for their machines.





- Manufactured with high quality vacuum degassed bearing steel
- Manufactured with running accuracy corresponding to ABEC 9
- Interchangeable with major manufacturers FAG, NSK, SKF, Nachi, etc
- Bore & diameters are micron coded
- Phenolic resin and polyamide cages for Spindle Bearings
- Available in dimensional series 70, 72, 719
- Available with steel and ceramic balls.

## FOR APPLICATIONS THAT REQUIRE THE HIGHEST PRECISION



NRB-IBC Bearings Pvt Ltd (NIBC) is a joint venture of NRB Industrial Bearings Ltd, India and IBC Walzlager GmbH, Industrial Bearings and Components Germany/IBC Industrial Bearings and Components AG, Switzerland. IBC manufactures super precision bearings mainly for the aerospace and machine tool industries.

NIBC, with its manufacturing plant in Shendra, Aurangabad, provides customers with application support, after sales support, faster delivery and competitive prices.

NIBC Super precision angular contact ball bearings are designed for all bearing applications with great requirements on reliability, stiffness, speed capability and running accuracy.

Our product range allows machine tool manufacturers across different sectors of industry as well as special-purpose machine designers to optimize their spindles by focusing on the aspects that are most important to them.

NIBC's range of super precision bearings contain many different variations of single-row Super precision angular contact ball bearings 70,72,719 series, with contact angle of 15 or 25 as standard. Customization, to suit a particular application, for contact angle, bearings with grease, seals, special pre-load or ceramic balls is also possible.

NIBC has tailored the internal design of its super precision angular contact ball bearings according to the requirements of the machine tool industry.



## NIBC SUPER PRECISION BEARINGS

Authorised Dealer:



### The NIBC Advantage

- Dimensional accuracy of P4A and running accuracy class of P2A
- Can be used in spindle design without any modifications
- Predictable performance by optimizing bearing & shaft fits.
- Improved stiffness & running accuracy resulting in better machining output.
- Can handle a wide range of machining applications.
- Faster delivery time due to indigenous manufacturing.
- In-house Application & Service support.



## NIBC BALL SCREW SUPPORT BEARINGS

Authorised Dealer:



- High Axial Rigidity : Greater number of balls with polyamide cage provides increased rigidity
- Compact Design : 60 contact angle allows the bearing to carry thrust load & some amount of radial load. This allows to have a compact design.
- Low Noise : The high quality of surface roughness achieved on the races combined with polyamide cage enables these bearings to have low noise.
- Ease of Assembly : Initial pre-loading of bearing provides ease of assembly without any adjustment
- Pre-packed grease : The bearings are packed with a measured quantity of grease so that the bearings can be installed out of the box
- Interchangeability : The bearings are easily interchangeable with any reputed manufacturers without any modifications in design.
- Universal Ground Set : The bearings are available in universal ground set so that they can be mounted in any combination

## FOR HIGH PRECISION BALL SCREWS







## NIBC BALL SCREW SUPPORT BEARINGS

Authorised Dealer:



NIBC Super precision 60 – angular contact thrust ball bearings are developed to meet the requirements of high thrust load for ball screw support applications. The large contact angle of 60 allows high thrust loads with great stiffness.

NIBC Super precision 60 – Angular contact thrust ball bearings are manufactured for universal matching – they can be rearranged and mounted in any arrangement. Our ball screw support bearings have a medium or high preload and a V-marking.

The bore and outer diameter are manufactured to precision class P4A. The axial run out is restricted to P2. These bearings have a ball guided polyamide cage which can sustain a temperature of -30 to 120 C. NIBC's ball screw support bearings are supplied with pre-packed grease GH62 for ready-to-use condition.

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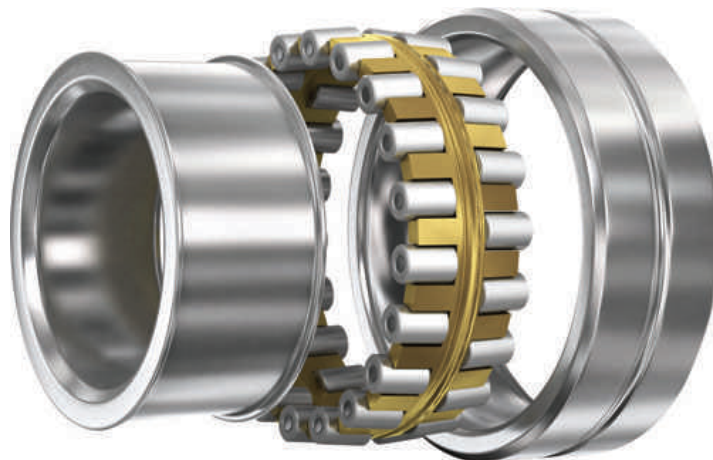
### The NIBC Advantage

- Dimensional accuracy of P4A and running accuracy class of P2A
- Can be used in Existing housing without any modifications
- Interchangeable with major manufacturers FAG, NSK, SKF, Nachi, Etc
- Bore & diameters are micron coded
- Polyamide cages for Ball Screw Bearings
- Universally Ground Bearings.



## NIBC CYLINDRICAL ROLLER BEARINGS

Authorised Dealer:



- NIBC high precision cylindrical roller bearings are manufactured in ' SP ' grade.
- Can be used in spindle design without any modifications
- Available in Brass cage.
- Available in dimensional series 30
- Available with steel and ceramic rollers.



## TYPICAL APPLICATIONS



NIBC high precision cylindrical roller bearings are designed for all machines applications with great requirements on reliability, stiffness, speed capability and running accuracy.

Our product range allows machine tool manufacturers across different sectors of industry as well as special-purpose machine designers to optimize their spindles by focusing on the aspects that are most important to them.

NIBC's range of super precision roller bearings has double row NN cylindrical bearings with straight and tapered bore which are manufactured in dimensional series 30.

NIBC has tailored the internal design of its super precision roller bearings according to the requirements of the machine tool industry.

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NIBC, with its manufacturing plant in Shendra, Aurangabad, provides customers with application support, after sales support, faster delivery and competitive prices.

### **The NIBC Advantage**

- Predictable performance by optimizing bearing & shaft fits.
- Improved stiffness & running accuracy resulting in better machining output.
- Can handle a wide range of machining applications.
- Faster delivery time due to indigenous manufacturing.
- In-house Application & Service support.
- Interchangeable with major manufacturers FAG, NSK, SKF, etc

## BALL SCREW SUPPORT BEARINGS

Highly precise angular contact thrust ball bearings for precision ball screws have been designed specifically for each application. Lineup includes both a highly rigid series and high-capacity series.

### Features

- 1.) The highly rigid series for machine tool applications has been designed specifically to provide large axial rigidity and precise rotation with lower starting torque.
- 2.) The highly rigid series is available with a lubricant seal for machine tool applications.
- 3.) The high load capacity series for electric injection molding machines offers enhanced service life through the use of optimally designed ball diameter and contact angle for a higher load rating.



**Ball Screw Support Bearings**



**Ball Screw Support Bearings for High-Load Drive Applications**



**Angular Contact Thrust Ball Bearings for Ball Screw Support (Double Row)**

## CYLINDRICAL ROLLER BEARINGS

NSK Super Precision Cylindrical Roller Bearings are designed specifically to handle large radial loads in high-speed spindle applications that demand high running accuracy (runout) of bearing-spindle arrangements.

### Features

- 1.) This lineup of bearing includes a basic series that meets ISO standards and a specified series targeting machine tools.
- 2.) A double-row cylindrical roller bearing series is available for applications requiring high rigidity. A single-row cylindrical roller bearing series is available for applications requiring high-speed performance.
- 3.) A Robust series of high performance bearings is available for applications requiring both high-speed and high-rigidity performance.



**Double-Row Cylindrical Roller Bearings**



**Standard Series of Single-Row Cylindrical Roller Bearings**



**Robust Series of Single-Row Cylindrical Roller Bearings**

**SUPER PRECISION ANGULAR CONTACT BALL BEARINGS**

NSK offers a wide lineup of precision angular contact ball bearings where customers to choose the optimum specification of bearing according to the needs of their application. NSK precision angular contact ball bearings provide the perfect solution for applications requiring high runout accuracy of rotating machine parts, such as the machine tool main spindles, or the application of faster rotating speeds.

**Features**

- 1.) This lineup of bearing includes a basic series that meets ISO standards, and a specified series targeting machine tools.
- 2.) A series of sealed angular contact ball bearings with prepacked grease is available.
- 3.) The Robust series of high performance bearings include, a wide lineup of bearings, ranging from highly rigid types to ultrahigh-speed types.



**High Precision Angular  
Contact Ball Bearings**



**Ultra High-Speed Angular  
Contact Ball Bearings**



**Spinshot II of Ultra High-Speed  
Angular Contact Ball Bearings  
with Oil-Air Lubrication**



**Ultra High Precision Angular  
Contact Ball Bearings**



**High-Speed Angular Contact  
Thrust Ball Bearings**



**Highly Rigid Angular Contact  
Thrust Ball Bearings**



**Gamet Bearings** have been manufacturing high precision tapered roller bearings for over forty years. Originally founded to serve the machine tool industry, Gamet has today expanded into other sectors of industry having high precision bearing requirements. These include the coating of materials, photographic emulsions or adhesives, and the printing & packaging industries and machine tool application.

**Single Row  
PLAIN CUP**



**Single Row  
FLANGED CUP (C type)**



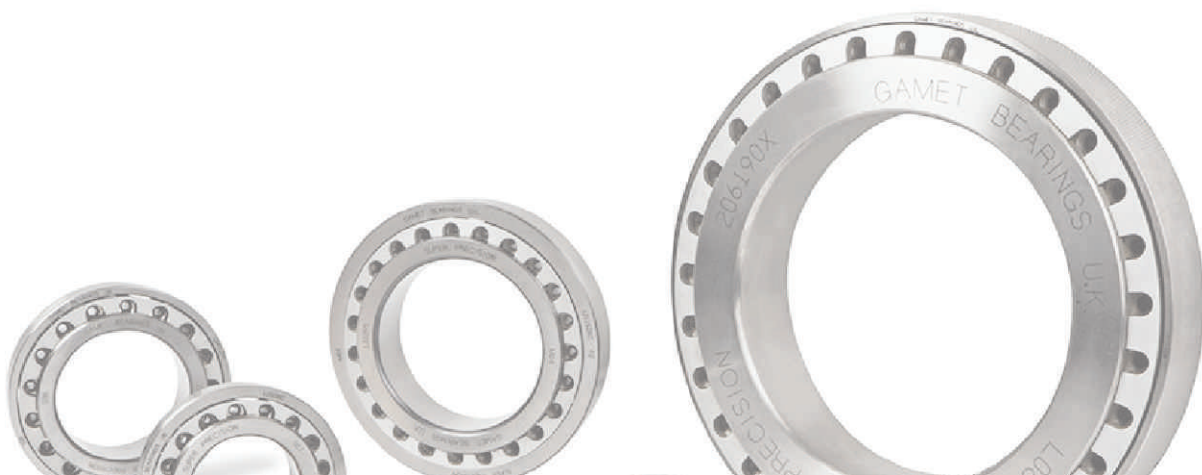
**Single Row  
CONSTANT PRELOAD  
(P type)**



**Double Row  
(G type)**



**Double Row Bearings  
FLANGED CUP (H type)**



**FAFNIR BEARINGS**

TIMKEN Fafnir are pioneers in manufacturing Angular Contact Super Precision Bearings which are designed to meet machine tools requirements for high speeds, accuracy and rigidity. These bearings are widely used in Grinding Machines, Machine Centres, Turning machining Leaghts, Bearing Machining etc.

**Angular Contact  
Super Precision****High Speed Sealed  
Angular Contact****Ball Screw  
Support Bearings****TIMKEN TAPERED ROLLER BEARINGS**

Tapered bearings are uniquely designed to manage both thrust and radial loads on rotating shafts and in housings. Timken manufacturers nearly 26,000 bearing combinations-in single, double and four-row configurations. Sizes range from at 8 mm (0.31496") bore to a 2,222.5 mm (87.5") outside diameter (OD).

**Single Row****Two Row**

Schneeberger develops and produces Compact, Integrated, Magneto-Resistant Distance Measuring systems for the high-precision profile rail guideways of the MONORAIL type. For the connection of the measuring systems to control systems and position display units, powerful interpolation electronics and a large range of connection and extension cables are available.



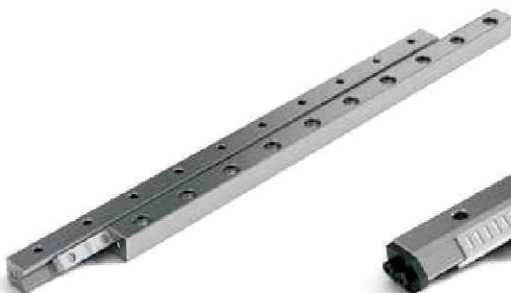
Linear guideway type R



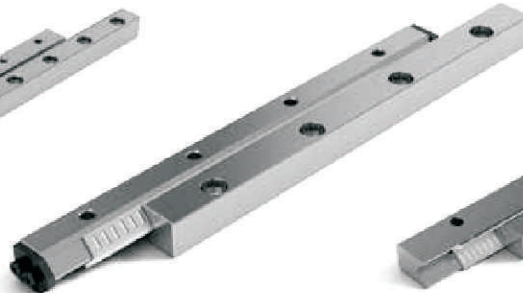
Linear guideway type RD



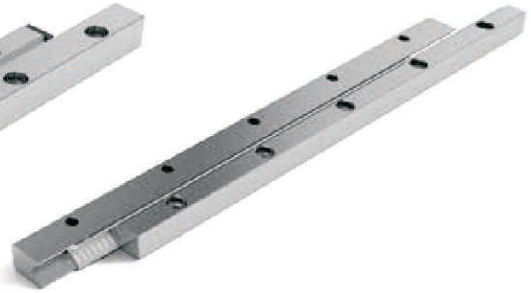
Linear guideway type RN



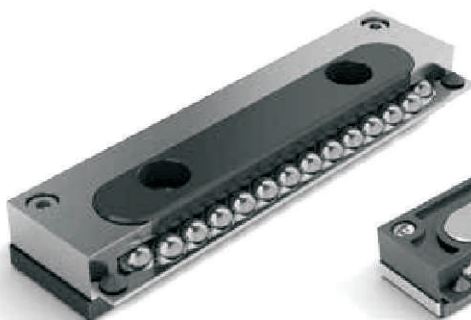
Linear guideway type RNG



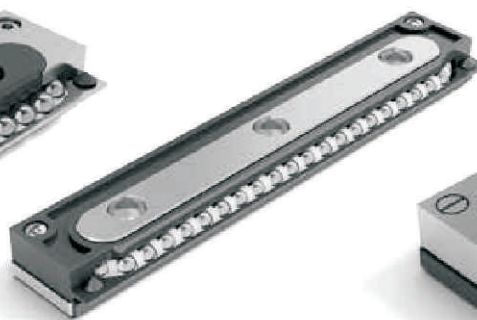
Linear guideway type N/O



Linear guideway type M/V



Recirculating unit type SK



Recirculating unit type SKD



Recirculating unit type SKC



Recirculating unit type SR



Recirculating unit type NRT



Preload wedge NRV



IKO, design's and manufacture's cam followers, linear guides, needle roller bearings and positioning stages to meet your highest quality and performance standards. Our motion devices deliver the precision and accuracy you expect over long maintenance-free lifecycles.

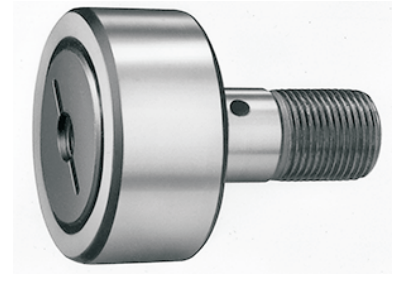
### Cam Followers



Standard Cam Followers



Eccentric cam followers



Centralized lubrication cam followers

### Needle Roller Bearings



Shell Type Needle Roller Bearings



Needle Roller Cages



Machined Type Needle Roller Bearings

### Angular Contact Ball Bearings / Spindle Bearings / Bearings Cartridges

The company has been manufacturing high precision Angular Contact Ball Bearing for Spindles as well as Multiple Row Bearing Units (Cartridges)



UKF Precision Machine Tool Bearings



## Description:

ISOFLEX NBU 15 is a high-speed grease with a good pressure absorption capacity. It consists of a combination of ester oil / synthetic hydrocarbon oil / mineral oil and barium complex soap. It provides good wear and corrosion protection, and is resistant to water, ambient media and oxidation.

## Application:

These lubricants are especially suitable for high-speed plain and rolling bearings, such as spindle bearings in machine tools and textile machines, threaded spindles, ball screws subject to high loads, running gear bearings. They are also used as long-term greases for bearings in cableways and precision engineering applications, and they are suitable for the lubrication of tooth flanks in precision gears (e.g. bevel gears in milling machines, electromechanical valve actuators).

## Application notes:

The lubricant is applied by brush, spatula, grease gun or grease cartridge. Owing to the different compositions of elastomers and plastic materials, it is indispensable to check compatibility prior to series application.

## Minimum shelf life:

The minimum shelf life is approx. 36 months if the product is stored in the original closed container in a dry place.

## Pack sizes:

50 g PE tube  
400 g cartridge  
1 kg can  
25 kg bucket

## ISOFLEX NBU 15

- Good pressure absorption capacity
- For high speeds
- Good wear protection
- Good corrosion protection
- Resistant to ageing and oxidation
- Good resistance to water and ambient media

## Product data:

	ISOFLEX NBU 15
Colour	beige
Texture	homogeneous, short-fibred
Density at 20 °C, g/cm <sup>3</sup>	0.99
Service temperature range*, °C, approx.	– 40 to 130
Drop point, DIN ISO 2176, °C, approx.	> 220
Worked penetration, DIN ISO 2137, (ASTM D 217); 0.1 mm	265 to 295
Corrosion protection (Emcor test), DIN 51 802, 1 week, distilled water, corrosion rating	0/1
Base oil viscosity, DIN 51 562/1, at 40 °C, mm <sup>2</sup> /s, approx. at 100 °C, mm <sup>2</sup> /s, approx.	21 4.7
Speed factor** (n x d <sub>m</sub> ), mm x min <sup>-1</sup> , approx.	1,000,000
Apparent viscosity***, Klüber viscosity grade	M

\* 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 mechanical loads, time, pressure and temperature. These changes in product characteristics may affect the function of a component.

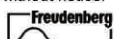
\*\* Speed factors are guide values which depend on the type and size of the rolling bearing type and the local operating conditions, which is why they have to be confirmed in tests carried out by the user in each individual case.

\*\*\* Klüber viscosity grades: EL = extra light lubricating grease; L = light lubricating grease; M = medium lubricating grease; S = heavy lubricating grease; ES = extra heavy lubricating grease

## ISOFLEX® NBU 15 Safety Data Sheet

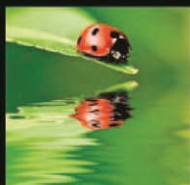
<div>1.1</div> <div>Product name: ISOFLEX NBU 15</div> <div>Code-No.: 004 026</div> <div>06.11.2001</div>	<div>Remove soiled or soaked clothing immediately. Clean skin thoroughly after work, apply skin cream</div>								
<div>1.2</div> <div>Klüber Lubrication München KG</div> <div>Geisenhausenerstraße 7</div> <div>D-81379 München</div> <div>Tel. ++49 - 89 78 76 - 0 telephone exchange</div> <div>Fax: ++49 - 89 78 76 - 333</div> <div>Emergency telephone no.: ++49 - 89 7876 - 0</div>	<div>9. Physical and chemical properties</div> <div>Formpaste</div> <div>Colourbeige</div> <div>Odourcharacteristic</div> <div>Drop point&gt; 220 °C, DIN ISO 2176</div> <div>Flash point&gt; 200 °C (base oil)</div> <div>Ignition temperaturenot applicable</div> <div>Lower explosion limitnot applicable</div> <div>Upper explosion limitnot applicable</div> <div>Vapour pressure-firstnot applicable</div> <div>Densityapprox. 0.99 g/cm<sup>3</sup>, 20 °C</div> <div>Water solubilityinsoluble</div> <div>pH valuenot applicable</div> <div>Kinematic viscositynot applicable</div> <div>Further informationnone</div>								
<div>2. Composition / information on ingredients</div> <div>Chemical characterization (preparation): Mineral oil, synthetic hydrocarbon oil, ester oil, barium complex soap</div> <div>Hazardous ingredients</div> <table><tr><th>Components</th><th>Value</th><th>Symbols</th><th>R-phrases</th></tr><tr><td>Barium soap</td><td>&gt; 25 %</td><td></td><td>52/53</td></tr></table>	Components	Value	Symbols	R-phrases	Barium soap	> 25 %		52/53	<div>10. Stability and reactivity</div> <div>Conditions to avoid: None</div> <div>Materials to avoid: Strong oxidizing agents</div> <div>Hazardous decomposition products: None under normal use</div> <div>Additional information: None</div>
Components	Value	Symbols	R-phrases						
Barium soap	> 25 %		52/53						
<div>3. Hazards identification</div> <div>R phrases: 52/53. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment</div> <div>Prolonged skin contact may cause skin irritation and/or dermatitis</div>	<div>11. Toxicological information</div> <div>Prolonged skin contact may cause skin irritation and/or dermatitis</div>								
<div>4. First aid measures</div> <div>After inhalation: Not applicable</div> <div>After contact with skin: Wash off with mild cleaners and plenty of water</div> <div>If symptoms persist, call a physician</div> <div>After contact with eyes: Rinse with plenty of water</div> <div>If symptoms persist, call a physician</div> <div>After ingestion: Do not induce vomiting. Obtain medical attention</div> <div>Advice to doctor: Treat symptomatically</div>	<div>12. Ecological information</div> <div>Information on elimination (persistence and degradability): Product is insoluble in water. May be separated out mechanically in purification plants</div> <div>Behaviour in environmental compartments: Ecological injuries are not known or expected under normal use</div> <div>Ecotoxic effects: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment</div> <div>Additional information: Should not be released into the environment</div>								
<div>5. Fire-fighting measures</div> <div>Suitable extinguishing media: Water spray, foam, dry powder, carbon dioxide (CO<sub>2</sub>)</div> <div>Unsuitable extinguishing media: High volume water jet</div> <div>Special Hazards: In case of fire the following can be released: Carbon monoxide, hydrocarbons</div> <div>Special protective equipment for firefighters: Standard procedure for chemical fires</div> <div>Additional information: Water mist may be used to cool closed containers. In the event of fire and/or explosion do not breathe fumes</div>	<div>13. Advice on Disposal</div> <div>Code of waste: 120112</div> <div>Wastes from shaping and surface treatment of metals and plastics; wastes from shaping (including forging, welding, pressing, drawing, turning, cutting and filing); spent waxes and fats</div> <div>Disposal: The code of waste has to correspond to the Council Directive 75/442/EEC and be specific as far as the related sector and process are concerned</div> <div>Can be incinerated when in compliance with local, state and federal regulations</div>								
<div>6. Accidental release measures</div> <div>Personal precautions: Not required</div> <div>Environmental precautions: Do not flush into surface water or sanitary sewer system</div> <div>Methods for cleaning up / taking up: Use mechanical handling equipment. Dispose of absorbed material in accordance with the regulations</div> <div>Additional information: None</div>	<div>14. Transport information</div> <div>GGVS / GGVE: not applicable</div> <div>ADN / ADN: not applicable</div> <div>IMDG-Code: not applicable</div> <div>ICAO / IATA-DGR: not applicable</div> <div>Further information: Not classified as dangerous in the meaning of transport regulations</div>								
<div>7. Handling and storage</div> <div>Advice on safe handling: No special handling advice required</div> <div>Advice on protection against fire and explosion: No special precautions required</div> <div>Requirements on storage rooms and vessels: Store at room temperature in the original container</div> <div>Incompatible materials: Incompatible with oxidizing agents. Do not store together with food</div>	<div>15. Regulatory information</div> <div>Labelling according to EU-guidelines: The product is classified labelled in accordance with EC-directive 99/45/CE</div> <div>R phrases: 52/53. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment</div> <div>S phrases: 61. Avoid release to the environment. Refer to special instructions/safety data sheets</div> <div>Labelling according to the Swiss regulations: No toxicological class, BAGT-no. 611500</div>								
<div>8. Exposure controls / personal protection</div> <div>Additional advice on system design: Not applicable</div> <div>Ingredients and specific control parameters: None</div> <div>Respiratory protection: No special protective equipment required</div> <div>Hand protection: No special protective equipment required</div> <div>Eye protection: No special protective equipment required</div> <div>Body protection: No special protective equipment required</div> <div>Other protection measures: No special protective equipment required</div> <div>General protection and hygiene measures: Avoid prolonged and/or repeated contact with skin.</div>	<div>16. Other information</div> <div>Issue-department of Safety Data Sheet: Chemical Documentation, Tel.: ++49 - 89 7876 - 564</div>								

The data in this product information is based on our general experience and knowledge at the time of printing and is intended to give information of possible applications to a reader with technical experience. It constitutes neither an assurance of product properties nor does it release the user from the obligation of performing preliminary tests with the selected product. We recommend contacting our Technical Consulting Staff to discuss your specific application. If required and possible we will be pleased to provide a sample for testing. Klüber products are continually improved. Therefore, Klüber Lubrication reserves the right to change all the technical data in this product information at any time without notice.



Klüber Lubrication München KG, a member of the Freudenberg group





## Grease Barium Complex L 2-S

### Low temperature and high speed synthetic grease

#### Description

Barium Complex Grease L 2/S is a complex soap thickened synthetic grease. It provides high resistance to oxidation, superior anticorrosive capacity, E.P. characteristics, good adherence to metal and good resistance to water, and resistance to vapour, acid and alkaline solutions.

#### Applications

Barium Complex Grease L 2/S is specially designed for high speed (600.000 rpm or 10<sup>6</sup> mm per minute) bearings which operate in a wet ambience. It is also specially designed for spindles, cams, joints and turbines. Extremely suitable for

the lubrication of spindles in CNC machines. Barium Complex greases are recommended for their performance in combination with metalworking emulsions.

#### Benefits

- Excellent behaviour to temperatures
- Corrosion protection
- Long life grease
- Extended bearing life
- Lower grease consumption
- Extends lubrication intervals
- Good pumpability
- Excellent adhesiveness

#### Typical performance data

	Test method	L 2-S
Colour		Ivory
Thickener, soap type		Barium complex
Base oil nature		Synthetic
Base oil viscosity @ 40 °C, cSt		22
NLGI class	DIN-51818	2
Penetration @ 25 °C, x 0,1 mm	ASTM D217	265-295
Drop point, °C	ASTM D566	>220
Oil separation 7 days/40 °C, %	IP-121	3
Flow pressure @ -40 °C, mbar	DIN-51805	850
4-balls wear test	IP-239	
• Welding load, kg		330
• Wear scar diameter 1'/40 kg, mm		0,45
EMCOR corrosion test	DIN-51802	0
Copper corrosion 24hrs/100 °C	ASTM D4048	1b
Resistance to water wash-out, 80 °C, %	ASTM D1264	1,50
Evaporation loss, weight %, 22hrs/100 °C, %	ASTM D972	0,80
SKF-ROF test, 20.000 rpm, 110 °C		L50 = 1910
Service temperatures, °C		-45 – 150

All performance data on this Technical Data Sheet are indicative only and can vary during production

**Matrix Specialty Lubricants BV - info@lubes-portal.com - www.lubes-portal.com**



# MSB

## MEHTA SPINDLE BEARINGS

### **Mumbai Office :**

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### **Pune Office :**

Pap J-121/122, Shop No. 101, MIDC, Near Quality Circle, Bhosari, Pune : 411026.

**Mobile :** 93233 32999 / 74984 44776 / 87792 50644

**Email :** nipul@mehtabearings.com / nipul\_mehta2000@yahoo.com