PRODUCT BULLETIN

The Future of Energy, Resources and Materials
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ENS Grease

Urea-Synthetic High-Temperature Long-Life Grease

ENS Grease is a long-life roller bearing grease with excellent properties at both low and high temperatures. It is blended from organic urea thickener, synthetic-ester base oil, and additives that provide outstanding antioxidation performance. **ENS Grease** can be used at high temperatures at which mineral-oil-based greases have very short lives.

● Special Features

1. Excellent Heat Resistance

The thickeners in **ENS Grease** are urea compounds, so the grease has a high dropping point and little oil separation. As a result, it has excellent resistance to heat, so it can be used at high temperatures.

2. Outstanding Water Resistance

ENS Grease has low water washout, so it is very resistant to water.

3. Superb Rust Prevention

ENS Grease contains powerful rust inhibitors, so it prevents rust even in environments exposed to water.

4. Excellent Low-Temperature Properties

ENS Grease is blended with synthetic-ester base oil, so it can be used even at temperatures as low as –40°C.

5. Usable for Long Periods at High Temperatures

Because **ENS Grease**'s synthetic-ester base oil has excellent oxidative stability, this grease can be used for long periods under high-temperature conditions.

● Applications

ENS Grease is ideal for the following lubrication locations:

(1) High-speed roller bearings used at low or high temperatures
(2) Roller bearings in electric-powered machinery
(3) Roller bearings in electrical components in automobiles
(4) Roller bearings in drying furnaces
(5) Roller bearings in blowers
(6) High-speed roller bearings in machine tools

● Containers

180-kg drums and 16-kg pail cans.

● Typical Properties of ENS Grease

Thickener			Urea compounds
Base oil			
Type			Synthetic-ester oil
Kinematic viscosity	(40°C)	mm^2/s	31.5
Penetration	(25°C, 60 strokes)		267
Worked stability	(25°C, 100,000 strokes)		310
Dropping point		°C	250 minimum
Oil separation	(100°C, 24 h)	mass%	1.9
Evaporation	(99°C, 22 h)	mass%	0.38
Oxidative stability	(99°C, 100 h)	kPa	30
Copper strip corrosion	(100°C, 24 h)		No change
Water washout	(79°C, 1 h)	mass%	0.4
ASTM rust prevention	(52°C, 48 h)		Level 1 (no rust)
Low-temperature torque	–30°C	N.m	
Starting			0.15
Rotating			0.02
Bearing life	Soda test (6204 bearings, 150°C, 10,000 rpm)	h	2,253

Note: The typical properties may be changed without notice. (June 2002)

Handling Precautions

▼ **Follow these precautions when handling this product.**

! CAUTION **Handling Precautions**	● Inflammation can occur if grease enters the eyes. When handling this grease, wear protective goggles or take other measures to prevent eye contact. ● Inflammation can occur if grease comes into contact with skin. When handling this grease, wear protective gloves or take other measures to prevent skin contact. ● Do not eat this grease. (Swallowing this grease can cause diarrhea and nausea.) ● When opening the container, wear protective gloves in order to avoid cutting your hands. ● Keep out of reach of children. ● Read the Material Safety Data Sheet (MSDS) for this product before using the product. Obtain the Material Safety Data Sheet from where you purchased the product.
First Aid	● In case of eye contact, rinse eyes thoroughly with clean water and consult with a physician. ● In case of skin contact, wash skin thoroughly with soap and water. ● If this grease is swallowed, do not induce vomiting. Consult with a physician immediately.
Disposal of Used Grease and Containers	● Do not apply pressure to empty containers. The containers may burst if pressure is applied. ● Do not weld, heat, drill, or cut the containers. The remaining grease may ignite and the containers may explode. ● Follow all applicable laws and regulations when disposing of used grease or containers. If you are unsure of the proper disposal methods, consult first with the seller of the grease.
Storage Method	Seal the container tightly after use in order to prevent dirt, moisture, etc., from entering the grease. Store in a dark location. Avoid direct sunlight.