MOLDED-OIL™ BEARINGS AND SOLID LUBE

NSK Molded-Oil™ bearings are uniquely designed to prevent the ingress of contamination from detrimentally impacting bearing performance, while providing a continuous and clean source of lubrication to the bearing. Oil-impregnated polyolefin resin serves as a barrier to water and dust, and slowly releases ample lubrication to the bearing with minimal risk of oil leakage for an extended maintenance-free service life and reduced operating costs.

PROVEN BENEFITS

- Extended maintenance-free performance with continuous supply of clean lubricant
- Eliminates the need for relubrication, reducing maintenance costs
- Eliminates risk of grease leakage, promoting clean operating environments
- More than 2x the operating life of grease lubricated bearings in water or dust-contaminated environments
- Ideal solution for remote or restricted access areas

CONDITIONS

- **CO** CONTAMINATION
- **CR** CORROSION
- **WT** WATER EXPOSURE
- **LU** LUBRICATION STRESS
- **FG** FOOD GRADE

APPLICATIONS

- Agricultural machinery
- Cleaning lines
- Conveying equipment
- Food processing
- Metal mills
- Paper mills
- Semiconductor

STAY IN MOTION. STAY IN CONTROL.

MOLDED-OIL™ BEARINGS AND SOLID LUBE

DESIGN FEATURES

- Lubricated with oil-impregnated material (solid lube) consisting of lubricating oil and polyolefin resin
- Oil slowly seeping from this material provides ample lubrication to the bearing for extended periods
- Acts as a barrier to water and dust ingress
- Low torque for smooth rotation of rolling elements
- Compositions for both general and high speed use
- Available for spherical roller, tapered roller and deep groove ball bearings

ADDITIONAL SOLID LUBE OPTIONS

Augmenting our "available from stock" Molded-Oil bearings, NSK also offers an expanded range of Solid Lube formulations for a variety of application challenges including:

- Extreme temperatures, with solutions for temperatures ranging from as low as -50°F to as high as 350°F
- Heavy loads with low speeds, with high-viscosity oil to accommodate heavily loaded roller bearings
- Food-grade solutions, including suitability for incidental food contact and food processing
- High temperature wash-down applications

These highly customized solutions can also be applied to a wider range of rolling bearing types including deep groove, angular contact and self-aligning ball bearings as well as spherical, cylindrical, tapered and thrust roller bearings.

MOLDED-OIL BEARING TYPES AND AVAILABILITY

Bearing types	Molded-Oil types	Cage types	Limiting speeds ($d_m n$)	Sizes (outside diameter, mm)
Spherical roller bearings	For general use	Machined brass (CA)	< 60,000	70 to 250
		Pressed steel (EA)	< 30,000	70 to 215
	For high speed operation	Machined brass (CA)	60,000 to 100,000	70 to 215
Deep groove ball bearings	For general use	Pressed steel	< 150,000	19 to 250
	For high speed operation	Pressed steel	150,000 to 200,000	19 to 215
Tapered roller bearings	For general use	Pressed steel	< 40,000	80 to 215

NOTE: $d_m n$ = [(Bearing bore diameter, mm + Bearing outside diameter, mm) ÷ 2] x inner ring rotational speed, min–1