

## MOLDED-OIL™ BEARINGS

### High performance in water and dust contaminated environments

NSK's environmentally friendly Molded-Oil™ bearings offer high performance in water and dust contaminated environments. Molded-Oil™ bearings are designed to prevent liquids such as water (which can wash the lubricating oil out) and dust from getting inside the bearings. Sealed types can be used in environments exposed directly to water and dust where bearing damage is dramatically accelerated. For applications in which bearing are exposed to large quantities of liquids such as water, corrosion resistance and operating life can be further enhanced by using long-life, corrosion-resistant stainless steel (ES1).



#### Condition Description:

- ✓ Contamination
- ✓ Water
- ✓ Corrosion
- ✓ Poor lubrication
- ✓ Clean

#### Product Features:

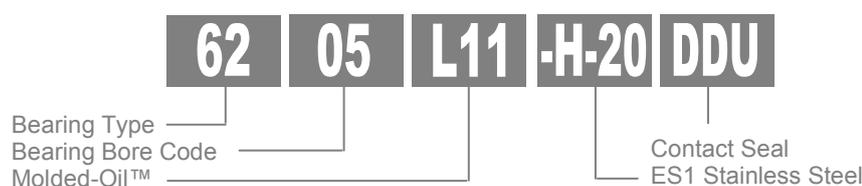
- Molded-Oil™
- L11 for general use, L12 for high-speed use
- Grease free minimising oil leakage
- Low torque comparable to grease lubrication
- NSK DDU contact seals available for deep groove ball bearings
- NSK ES1 stainless steel available for corrosive environments

#### Product Benefits:

- Environmentally friendly i.e. no grease required
- Long life and corrosion-resistance with ES1 stainless steel
- Exceeding double operating life for extended water or dust exposure
- Efficient sealing and protection options to suit many applications
- Grease-free clean environments i.e. food processing (no grease leakage)

#### Applications:

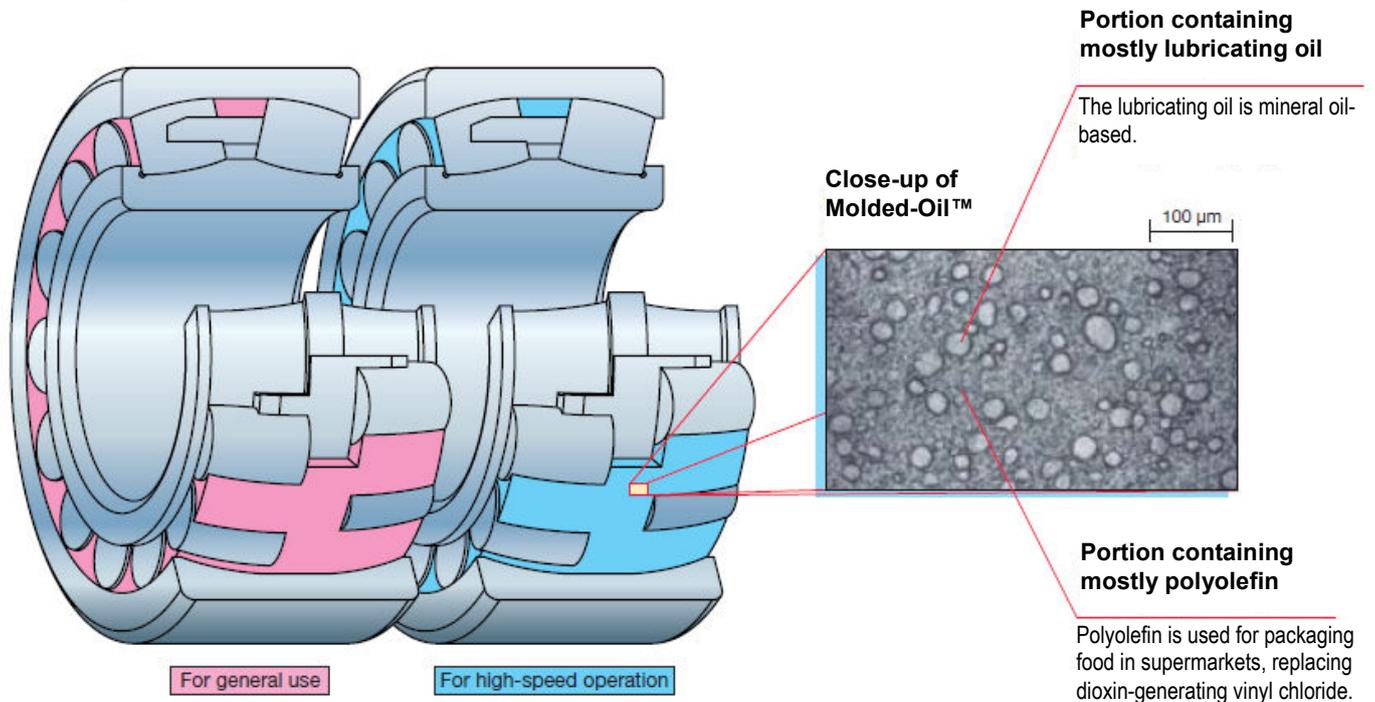
- Paper mill equipment
- Food processing equipment
- Conveying equipment
- Steel mill equipment
- Agricultural machines
- Cleaning equipment & lines



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Molded-Oil™ bearings are lubricated with NSK's own oil-impregnated material. Molded-Oil™ consists of lubricating oil and Polyolefin resin that has an affinity for oil. Oil slowly seeping from this material provides ample lubrication to the bearing for extended periods.



Available Molded-Oil™ Bearing type, cage type, limiting speed, and size (outside diameter, mm)

Bearing Types	Molded-Oil™ Types	Cage Types	Limiting Speeds (dmn)	Sizes, mm (outside dia.)
Spherical Roller Bearings	for general use (L11)	Machined brass (CA)	less than 60,000	70 ≤ OD ≤ 250
		Pressed steel (EA)	less than 30,000	70 ≤ OD ≤ 215
	for high-speed operation (L12)	Machined brass (CA)	60,000 – 100,000	70 ≤ OD ≤ 215
Deep Groove Ball Bearings	for general use (L11)	Pressed steel	less than 150,000	19 ≤ OD ≤ 250
	for high-speed operation (L12)	Pressed steel	150,000 – 200,000	19 ≤ OD ≤ 250
Tapered Roller Bearings	for general use (L11)	Pressed steel	less than 40,000	80 ≤ OD ≤ 215
Insert Ball Bearings	for general use (LP99)	Pressed steel	less than 150,000	47 ≤ OD ≤ 110

$dmn = (\text{bearing bore diameter, mm} + \text{bearing outside diameter, mm}) \div 2 \times \text{inner ring rotation speed, min}^{-1}$ .

For further information on the Molded-Oil™ product range, please refer to catalogue number E1216

For more information about NSK products, please contact:

[www.nz.nsk.com](http://www.nz.nsk.com)