

TOPLINE



Our TOPLINE products are designed to meet the extreme speed or temperature requirements for your applications.



HIGH SPEED • HVZZ

These low-torque bearings are perfectly suited to high-speed applications and effectively reduce electricity use.

**WOODWORKING MACHINES,
ELECTRIC MOTORS, WIRE ROLLING MILLS.**



HIGH TEMPERATURE

UP TO +150°C (302°F) • FT150

Designed for high-temperature operation, these bearings maintain reliable performance while keeping noise levels low.

**INDUSTRIAL FANS, ELECTRIC MOTORS,
CONVEYOR SYSTEMS.**



LOW TEMPERATURE • LT

With its specially adapted grease, this product family is ideal for low-temperature applications and also boasts resistance to humidity.

COLD STORES, CABLE TRANSPORT SYSTEMS.



HIGH TEMPERATURE

UP TO +200°C (392°F) • HT200

Engineered for demanding conditions, this product range operates reliably at temperatures up to +200°C.

**PACKAGING MACHINES, DRYERS,
FOOD OVENS.**



VERY HIGH TEMPERATURE

UP TO +350°C (662°F) • F60x

Designed for extreme operating temperatures, these bearings deliver reliable performance with speed capabilities up to 200 rpm..

**KILN CARS, STEELMAKING,
CONSTRUCTION MATERIAL MANUFACTURING.**

Please contact your local
NTN Sales Representative
for more details.

www.ntnamericas.com

Technical Characteristics

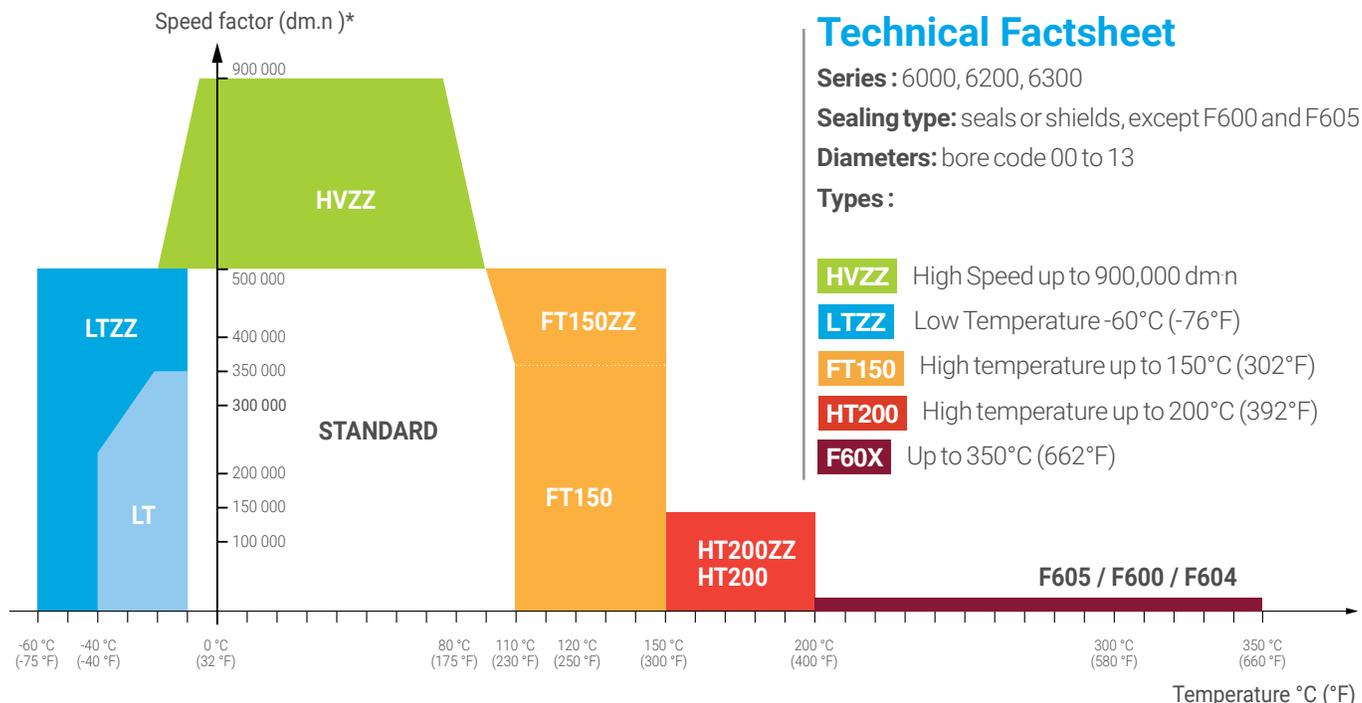
We use the best technologies available, so that each product is ideally geared towards your needs.

Products	Cage	Internal Clearance	Grease	Sealing	Other	Use Conditions
HVZZ	Glass fiber reinforced polyamide 6.6	C3	Superior quality. Lithium thickener + synthetic base oil	Steel shields	Precision P6, P5. High-precision balls (<= Class 10)	Temp. Range: -20°C to +120°C Max. Speed: 700,000 dm n
LT LTZZ	Steel	C3	Suited to low temperatures. Lithium thickener + synthetic base oil	Nitrile rubber seals (NBR) or steel shields	-	LT Temp. Range: -40°C to +100°C LTZZ Temp. Range: -60°C to +120°C Max. Speed: 500,000 dm n
FT150 FT150ZZ	Steel	C3	Adapted to high temperatures. Polyurea thickener + synthetic base oil	Fluoroelastomer seals (FKM) or steel shields	-	Temp. Range: -30°C to +150°C Max. Speed : 500,000 dm n
HT200 HT200ZZ	Steel	C4	Adapted to high temperatures. PTFE solid lubricant and PFPE oil	Fluoroelastomer seals (FKM) or steel shields	Specific heat treatment	Temp. Range: -40°C to +200°C Max. Speed: 150,000 dm n
F605	Steel	Greater than C5*	**	-	Brand is stamped	Temp. Range: +200°C and +350°C (continuous or cyclic) Max. Speed: 200 rpm Moderate loads
F600	Steel	Greater than C5*		-	Specific surface treatment (phosphatization + MoS2 deposition)***	
F604	Steel	Greater than C5*		Suitable for very high temperatures. Polyalkylene glycol base oil + solid additive	Steel shields	

* Significantly increased internal clearance to offset the material's expansion effects.

** In case of F600 and F605, if additional lubrication is required, an appropriate amount of grease may be introduced into the bearing. Contact NTN for more information.

*** Surface treatment for greater oxidation resistance and improved lubrication. Caution: F600 and F604 products must be used with care in damp environments, since MoS2 may react with water to produce sulphuric acid.



* dm n is a speed factor where n is the speed of rotation in rpm and dm is the average diameter of the bearing (d + D)/2

Example: bearing 6206, d = 30 mm / D = 62 mm
dm n = 46 mm x 10,000 RPM = 460,000 dm n