

Thordon Material Selection Guide for Pump Bearing Applications

Parameter	Thordon Grades					
	XL	SXL	Composite (GM2401)	PT80	ThorPlas-Blue	ThorPlas-White
Description	Elastomeric Polymer Alloy	Elastomeric Polymer Alloy	Elastomeric Polymer Alloy	Elastomeric Polymer Alloy	Engineered Thermoplastic	Engineered Thermoplastic
Temperature Limit	60°C (140°F)	60°C (140°F)	60°C (140°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)
Suitable for Dry Start Up	NO	YES**	NO	YES**	YES**	YES**
Resistance to Acids	Limited	Limited	Limited	Fair	Good	N/A
Resistance to Alkalies	Limited	Limited	Limited	Fair to Good	Fair	
Suitable for Hydrocarbons	YES	YES	YES	YES	YES	
Abrasion Resistance	Good	Better	Best	Better	Acceptable	
Installation Clearance	Medium	Medium to Low	Higher	Medium to Low	Lowest	Lowest
Shaft Sleeve Material	Bronze, Stainless Steel	Bronze, Stainless Steel	Ni-Cr-B Recommended	Bronze, Stainless Steel	Bronze, Stainless Steel	Bronze, Stainless Steel
Lubrication	Water, Seawater, Most Fluids (pH 5-10)	Water, Seawater, Most Fluids (pH 5-10)	Water, Seawater, Most Fluids (pH 5-10)	Water, Seawater, Most Fluids (pH 3-11)	Water, Seawater, Most Fluids (pH 3-11)	Potable Water
Remarks	Good balance between abrasion resistance and medium level of friction	Low friction; Suitable for dry start-up; Good abrasion resistance	For use in highly abrasive operating environments	Suitable for >60°C (140°F); Low friction; Suitable for dry start-up; Good abrasion resistance	Lowest friction. Good for low abrasion applications and for use at temperatures and in chemical solutions unsuitable for Thordon elastomers	NSF International Certification for NSF/ANSI 61 Drinking Water System Components

** For dry start up times longer than 30 seconds, please contact Thordon Engineering for grade selection

Note: For Nuclear use, Quality Control certificates including certified test reports can be supplied. Thordon Bearings Inc. operates under the provision of 10 CFR21.

This is a general guide for technical reference only. Critical applications that are close to pressure or temperature limits, or subjected to non-standard environments should be reviewed and approved by Thordon Engineering.

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