Tufcot® T100MP XPL



Mechanical Properties

Compressive strength		
Normal to laminations	**345**	MPa
Parallel to laminations	**138**	MPa
Compressive modulus	**2750**	MPa
Tensile strength	**60**	MPa
Hardness	**105**	Rockwell M
Density	**1.35**	g cm^{-3}
Water absorbtion	**< 0.10 %**	volumetric

Tribological Properties

Coefficient of friction	**0.04 - 0.07**	
(dry sliding against stainless steel @ 15 MPa)		

Thermal Properties

Operating temperatures		
Minimum	**-40**	°C
Continuous	**70**	°C
Maximum	**100**	°C
Linear expansion coefficients		
Normal to laminations	**13**	x 10^{-5} / °C
Parallel to laminations	**7**	x 10^{-5} / °C

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Operating Pressures

Bearing operating pressures normal to laminations are limited to the values:

Static	**150**	MPa
Dynamic	**110**	MPa

Where loads are applied in the parallel direction, operating pressures should not exceed one-third of the figures above.

Under certain conditions, these limits can be exceeded in consultation with Tufcot. Radial spherical bearings have lower operating pressures due to shape considerations and Tufcot® should be consulted.

Continuous Pv Limits

For dynamic applications, the continuous operation of bearings is limited by frictional heat generation. For this reason, the combination of pressure and velocity (Pv) should also be considered.

Dry	**0.56**	MPa . m s^{-1}
Greased	**N/A**	MPa . m s^{-1}

When bearing operation is not continuous, frictional heat can dissipate and in these cases, correction factors can be applied to increase the allowable Pv.

XPL grades incorporate a low-friction running surface intended for dry operation.

Contact Tufcot® for support with material suitability for specific applications and operating conditions.

Values are nominal and intended to be used as a guide. Data is based on testing carried out in accordance with the relevant standard. Friction testing is performed according to optimum conditions.

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