

PLASTIC BUSHES AND BEARING

QUESTIONNAIRE FOR MATERIAL SELECTION AND DESIGN

BUSH OR BEARING

A Bush or a bearing is known as a Plain Bearing, i.e. they don't have rolling elements like a ball bearing. The primary function is to support movement by being an interface between rotating or sliding parts. This crucial component is designed to reduce friction between moving parts and act as a sacrificial wear component.

BENEFITS OF PLASTIC BUSHES & BEARINGS

Eliminating Lubricants – unlike rolling element bearings and bronze bushes, often plastic bushes and bearings can run dry, especially when self-lubricating materials such as Ertalon LFX and Ertalyte TX are utilized.

Dirty & dusty conditions – where traditional bearings suffer, plastics with high abrasion resistance such as Polystone 7000 and Ertalon LFX can provide maintenance free operation.

Low Friction – metal-on-metal sliding in the case of bronze results in higher friction than plastic-on-metal, requiring higher energy and wear rates, opposed to the low friction of plastics, such as Nylatron NSM, Nylatron 703XL, Ertalyte TX and Ticomp S.

Reduced wear – traditional plain bushes such as bronze result in higher shaft wear and therefore reduced service life of both the bush and the shaft (or counter-face).

Dotmar has qualified engineers that can provide direct support with plastic bush and bearing designs, including conducting calculations and reports.



BEARING

DESIGN GUIDE APPLICATION

Company

Address

City/Suburb

State

Post Code

Contact

Phone

Email

Technical Information Required For Bearing Calculation

Material Suggestion (optional)

Shaft Diameter (Min / Max)

Housing Diameter (Min / Max)

Length of Bearing

Load

RPM

Ambient Temperature

Relative Operating Time

Is It Retained?

(75% of the ends of the bearing supported)

Lubricated Continuously?

Severe Shocks?

Submerged in Water?

Long Time Static Load?

Relative Humidity?

Split Bush?

Presence of Chemicals

Min

C

Max

C

%

1 Hour Continuously = 100%

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

50%

80%

Yes

No

Yes

No

%

If Yes Type:

Concentration:

Application