

SELECTING PLASTICS FOR WEARING APPLICATIONS

Plastics can be used in a variety of industries and applications. It is very common for plastics to be used as bearing material. Its properties generally increase wear performance and are not harmful to mating parts. When selecting a plastic material for a bearing material, PV is something you should know.

The PV value determines amount of pressure and velocity the material can handle. Pressure is the load being applied on the material in "PSI". Velocity is the linear speed of a shaft, chain or plate that is moving over a projected area expressed in "FPM".

To calculate PV for bushings use the following equations.

Projected Area

$$\text{Bearing ID} \times \text{Length} = \text{Sq.in}$$

Pressure

$$\text{Bearing Load} \div \text{Projected Area} = \text{psi}$$

Velocity

$$0.262 \times \text{rpm} \times \text{Shaft Diameter} = \text{fpm}$$

PV - Imposed PV on Bearing

$$\text{psi} \times \text{fpm} = \text{PV}$$

PV VALUES OF PLASTICS

| Material | PV Value |
|--------------|----------|
| UHMW-PE | 2000 |
| Nylatron GSM | 3000 |
| Nylatron NSM | 15,000 |
| Acetron GP | 2700 |
| Ertalye TX | 6000 |
| Peek HPV | 35,000 |

*If you require more information on calculating PV values please contact
TECHNICOR INDUSTRIAL SERVICES INC.*

OTHER PRODUCTS BY TECHNICOR



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