

# EP<sup>®</sup>12

## SELF-LUBRICATING ENGINEERED PLASTIC BEARINGS



### APPLICATIONS

**General** – Generally applicable within the limits of the material properties

**Industrial** – Domestic appliances, furniture, office equipment, sports equipment and many more

### CHARACTERISTICS

- Good bearing performance in dry working conditions
- Good bearing performance in lubricated or marginally lubricated applications
- Corrosion resistant in humid/saline environments
- Very good price performance ratio
- Very good weight performance ratio
- Within injection moulding tool feasibility unlimited dimensions and design features
- Compliant to ELV, WEEE and RoHS specifications
- Approved to standard DIN 75 201 for determination of the fogging characteristics of materials in the interior of automobiles
- Approved to standard DIN 75 200 / FMVSS 302 - Federal Motor Vehicle Safety Standard concerning the flammability of materials used in the occupant compartments of motor vehicles
- Approved to VDA 277 - testing to determine the total level of VOC emissions from non-metallic automotive interior materials
- Approved to VDA 275 - Determination of formaldehyde emission from molded parts for vehicle interiors
- Approved to VDA 270 - Determination of the odour characteristics of trim materials in motor vehicles

### AVAILABILITY

**Bearing forms made to order:** Cylindrical bushings, flange bushings, thrust washers, bushings, plates, special bearings



BEARING PROPERTIES		UNITS	VALUE
<b>GENERAL</b>			
Maximum load, p	Static	N/mm <sup>2</sup>	65
	Operating temperature	Min	°C
	Max	°C	125
Coefficient of linear thermal expansion		10 <sup>-6</sup> /K	120
<b>DRY</b>			
Maximum sliding speed, U		m/s	1.0
Maximum pU factor	For A <sub>H</sub> / A <sub>C</sub> = 5	N/mm <sup>2</sup> x m/s	0.04
	For A <sub>H</sub> / A <sub>C</sub> = 10	N/mm <sup>2</sup> x m/s	0.09
	For A <sub>H</sub> / A <sub>C</sub> = 20	N/mm <sup>2</sup> x m/s	0.18
Coefficient of friction, f			0.18 - 0.30
<b>RECOMMENDATIONS</b>			
Shaft surface roughness, Ra		µm	0.1 - 0.5
Shaft surface hardness		HV	> 200

**OPERATING PERFORMANCE**

Dry	Very Good
Oil lubricated	Good
Grease lubricated	Good
Water lubricated	Fair
Process fluid lubricated	Good after resistance testing

**FOR SUPERIOR / LEAD-FREE PERFORMANCE**

Water lubricated	EP22
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**MICROSECTION**

