

# EP<sup>®</sup>63

## SELF-LUBRICATING ENGINEERED PLASTIC BEARINGS



### APPLICATIONS

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

**Industrial** – Domestic appliances, valve technology, electronics assembly, agricultural machinery and many more

### CHARACTERISTICS

- Good bearing performance in dry working conditions
- Good performance in lubricated or marginally lubricated applications
- Corrosion resistant in humid/saline environments
- Suitable for very high temperature applications
- 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 FAR 25.853 and FAR 25.855 (Federal Aviation Regulations) and ASTM E162:2016 – surface flammability testing for aircraft interior applications
- Tested acc. to ASTM E595/ECSS-Q-ST-70-02C - Outgassing properties of materials used in Spacecraft equipment

### AVAILABILITY

**Bearing forms available in standard dimensions:**

Plain cylindrical bushes, plain flanged bushes

**Bearing forms made to order:** Standard forms in special dimensions, thrust washers, half-bearings, sliding plates, customized bearing designs



BEARING PROPERTIES		UNITS	VALUE
<b>GENERAL</b>			
Maximum load, p	Static	N/mm <sup>2</sup>	90
	Operating temperature	Min	°C
	Max	°C	290
Coefficient of linear thermal expansion		10 <sup>-6</sup> /K	50
<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	0.16
	For A <sub>H</sub> / A <sub>C</sub> = 10	N/mm <sup>2</sup> x m/s	0.66
	For A <sub>H</sub> / A <sub>C</sub> = 20	N/mm <sup>2</sup> x m/s	2.63
Coefficient of friction, f			0.12 - 0.21
<b>RECOMMENDATIONS</b>			
Shaft surface roughness, Ra		µm	0.1 - 0.5
Shaft surface hardness		HV	> 200

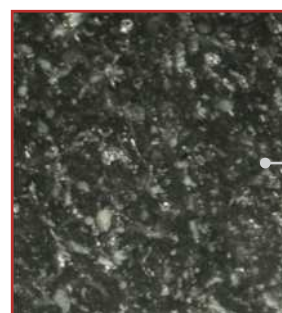
**OPERATING PERFORMANCE**

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

**FOR SUPERIOR PERFORMANCE**

Water lubricated	EP64
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**MICROSECTION**



PEEK + Solid Lubricant + Fillers