

Oiles Fiberflon FW Multi-layer epoxy resin bearings

Standard product/Custom-made product



Feature

- Serviceable without the need for lubrication. Offers superior performance under high-load, low-speed conditions.
- Tolerates abrasive friction conditions. Also usable under fretting sliding conditions.
- Has superior chemical resistance.
- The standard products are available in various sizes.

Service range

Lubrication condition	Dry
Service temperature range °C	-40~+120
Allowable max. pressure P N/mm ² {kgf/cm ² }	100 {1,020}
Allowable max. velocity V m/s {m/min}	0.15 {9}
Allowable max. PV value N/mm ² · m/s {kgf/cm ² · m/min}	1.20 {734}

Condition: in atmosphere, bushing, shaft rotation.

Mechanical properties

Specific gravity	JIS K 6911	—	1.60~1.90	Izod impact strength (with notch)	JIS K 6911	J/m {kgf·cm/cm}	93.2 {9.5}
Tensile strength	JIS K 6911	N/mm ² {kgf/mm ² }	340 {34.7}	Co-efficient of linear expansion	ASTM D 696	×10 ⁻⁵ °C ⁻¹	2~4
Compressive strength	JIS K 6911	N/mm ² {kgf/mm ² }	255 {26.0}				
Hardness	JIS K 6911	HRM	80				

※The values shown above are typical values, not the standard values.

Test data

Journal oscillation test

<Testing conditions>

Bearing dimension : φ60×φ75×ℓ25

Mating material : S45C (220HBW)

Pressure : 49.0N/mm² {500.0kgf/cm²}

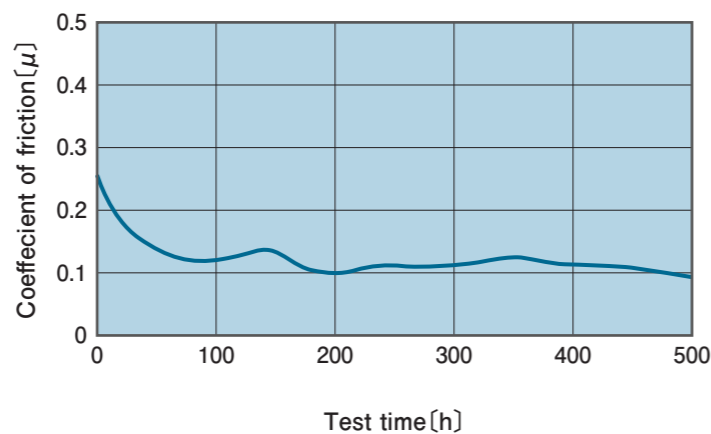
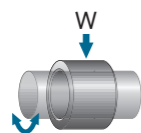
Velocity : 0.0078m/s {0.47m/min}

Oscillating cycle : 5cpm

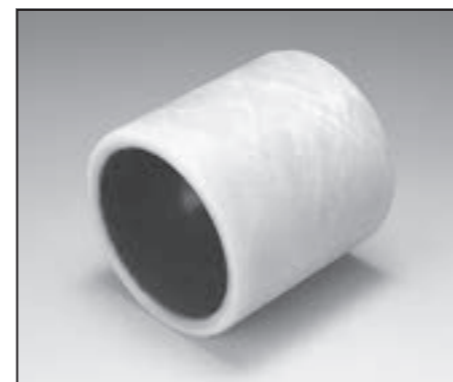
Oscillating angle : ±45°

Test time : 500h

Lubrication : dry

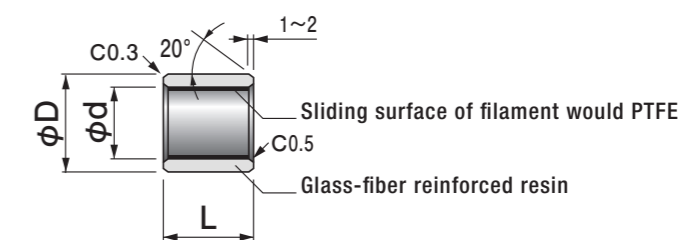
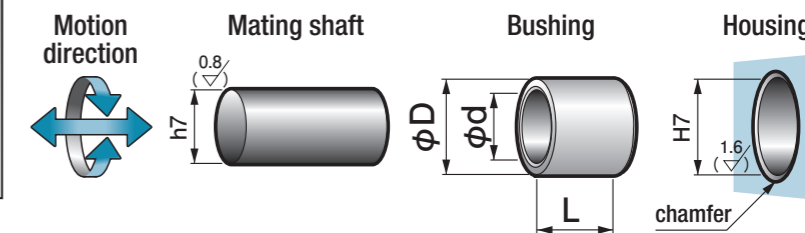


FFB Oiles Fiberflon FW Bushings



Specify Part No. by required I.D., O.D. and Length.
(e.g.) I.D. is 50mm, O.D. is 60mm, and length is 50mm.

FFB - 506050
Part No.



I.D.		O.D.		Length L							I.D. tolerance after press fitting (reference)	
φd	Tolerance	φD	Tolerance	20	25	30	40	50	60	70		80
20	+0.162 +0.110	28	+0.073 +0.040	202820		202830						+0.116 +0.064
25	+0.162 +0.110	35	+0.084 +0.045		253525	253530						+0.110 +0.058
30	+0.162 +0.110	40	+0.084 +0.045		304025	304030						+0.110 +0.058
35	+0.192 +0.120	45	+0.084 +0.045			354530	354540					+0.140 +0.068
40	+0.192 +0.120	50	+0.084 +0.045			405030	405040	405050				+0.140 +0.068
45	+0.192 +0.120	55	+0.096 +0.050				455540					+0.134 +0.062
50	+0.192 +0.120	60	+0.096 +0.050			506030	506040	506050	506060			+0.134 +0.062
60	+0.224 +0.140	75	+0.096 +0.050						607560	607570		+0.166 +0.082
70	+0.224 +0.140	85	+0.114 +0.060						708560	708570		+0.155 +0.071
80	+0.224 +0.140	100	+0.114 +0.060								8010080	+0.155 +0.071

※The I.D. tolerance after press fitting is for reference only.