

HPF[®]

**FIBER REINFORCED COMPOSITE BEARINGS
WITH PTFE TAPE LINER**



APPLICATIONS

Industrial – Servo-motor bearings, operating ring sliding segments, linkage bearings, wicket gate bearings, guide vane bearings, intake gate sliding segments, intake gate roller bearings, spillway gate bearings, trash rate bearings, fish screen bearings, trunnion bearings, blade bearings, injector bearings, deflector bearings, ball and butterfly trunnion bearings, etc.

CHARACTERISTICS

- Proprietary filled PTFE tape machinable liner
- Designed for hydropower applications
- Machinable bearing surface
- High load capacity
- Excellent shock and edge loading capacity
- Excellent corrosion resistance
- Dimensionally stable - very low water absorption, low swelling
- Environmentally friendly

AVAILABILITY

Bearing forms available in standard dimensions:

Plain cylindrical bushes, sliding plates

Bearing forms made to order: cylindrical bushes with non-standard dimensions, customized bearing designs



| BEARING PROPERTIES | | IMPERIAL UNITS | IMPERIAL VALUE | METRIC UNITS | METRIC VALUE |
|--------------------|--|----------------|----------------|--------------|--------------|
|--------------------|--|----------------|----------------|--------------|--------------|

| GENERAL | | | | | |
|-----------------------|---------|-----|--------|-------------------|-------|
| Maximum load, p | Dynamic | psi | 20 000 | N/mm ² | 140 |
| | Static | psi | 20 000 | N/mm ² | 140 |
| Operating temperature | Min | °F | -320 | °C | - 195 |
| | Max | °F | 285 | °C | 140 |

| DRY | | | | | |
|--------------------------|--|-----------|--------------|-------------------------|--------------|
| Maximum sliding speed, U | | fpm | 500 | m/s | 2.5 |
| Maximum pU factor | | psi x fpm | 35 000 | N/mm ² x m/s | 1.23 |
| Coefficient of friction | | | 0.02 - 0.10* | | 0.02 - 0.10* |

| GREASED LUBRICATION | | | | | |
|-------------------------|--|--|--------------|--|--------------|
| Coefficient of friction | | | 0.02 - 0.08* | | 0.02 - 0.08* |

| RECOMMENDATIONS | | | | | |
|-----------------------------|-------------------------|-----|--------|----|-----------|
| Shaft surface roughness, Ra | | µin | 8 - 32 | µm | 0.2 - 0.8 |
| Shaft surface hardness | Normal | HB | > 180 | HB | > 180 |
| | For longer service life | HB | > 480 | HB | > 480 |

* Depending on operating conditions

OPERATING PERFORMANCE

| | |
|--------------------------|-----------|
| Dry | Very Good |
| Oil lubricated | Very Good |
| Grease lubricated | Poor |
| Water lubricated | Very Good |
| Process fluid lubricated | Good |

FOR SUPERIOR PERFORMANCE

| | |
|-------------------|-----------|
| Grease lubricated | DX / DX10 |
|-------------------|-----------|

MICROSECTION

