CROSS REFERENCE GUIDE

There are several critical parameters that determine which MicroPoly grade is best for your specific bearing application. Our sales and technical staff can help you select the proper MicroPoly product for your needs.

TECHNICAL DATA

PRODUCT #	MPI-0800	MPI-0779	MPI-2000	MPI-2400	MPI-2500	MPI-4500	MPI-S700	MPF-0696	MPF-1150
COLOR	BLACK	BLACK	RED	OFF WHITE	YELLOW	LIGHT BLUE	GREEN	WHITE	WHITE
BASE OIL	PARAFFINIC	SYNTHETIC	BLEND	SYNTHETIC	SYNTHETIC	SYNTHETIC	SYNTHETIC	SYNTHETIC	SYNTHETIC
LOWER TEMP. LIMIT	10°F (-12°C)	<-49°F (-45°C)	10°F (-12°C)	-22°F (-30°C)	5°F (-15°C)	-35°F (-37°C)	-49°F (-45°C)	<-49°F (-45°C)	–39°F (-38°C)
UPPER TEMP. LIMIT	200°F (93°C)	225°F (107°C)	350°F (177°C)	350°F (177°C)	210°F (99°C)	210°F (99°C)	250°F (121°C)	210°F (99°C)	210°F (99°C)
OIL VISCOSITY AT 40°C/100°C CST	139.7/14.2	150/19.3	305/27.95	550/48.2	483/42.7	950/77.0	149/19.0	150/19.1	232.3/25.6
VISCOSITY INDEX	96	146	164	150	139	91	144	145	126
OIL SPECIFIC GRAVITY	0.88	0.86	0.97	0.97	0.97	0.86	0.86	0.86	0.86
COPPER CORROSION	PASS	1A (3 hrs @ 100°C)	PASS	PASS	1B	1A	1B (24 hrs @ 121°C)	1A (3 hrs @ 100°C)	1B (24 hrs @ 250°C)

PRODUCT FEATURES

PRODUCT #	MPI-0800	MPI-0779	MPI-2000	MPI-2400	MPI-2500	MPI-4500	MPI-S700	MPF-0696	MPF-1150
EP*		✓	✓	✓	✓	✓	✓	✓	✓
ANTI-WEAR			✓	✓					
ANTI-RUST / ANTI-CORROSION**	✓	✓	✓	✓	✓	✓	✓	✓	✓
ANTIOXIDANT	✓	✓	✓	✓	✓	✓	✓	✓	✓
H1 FOOD GRADE								✓	✓
WASHDOWN FRIENDLY***	✓	✓	✓	✓	✓	✓	✓	✓	✓
WATER RESISTANCE	GOOD	GOOD	GOOD	VERY GOOD	GOOD	GOOD	GOOD	GOOD	GOOD
AVAILABLE AS SOLID PROFILES		✓						✓	

*EP = Extreme Pressure (reduces friction between heavily loaded rolling elements)
**Anti-rust/anti-corrosion additives in MicroPoly will inhibit, but not prevent, rust and corrosion.
***Washdown Friendly = Will not be washed out by standard water cleaning methods. Please note that MPI-2000 meets this standard; however, one of its oils is slightly soluble in water

➤ HOW DOES IT WORK?

- Microporous polymeric lubricants (MPLs) can provide continuous source of lubrication.
- Polymer is inserted into space between the rolling elements and race of bearings, sealing bearings from contamination.
- Two major components of MPLs are the polymer containing continuous microporous network and the oil within the pores.
- Corrosion inhibitors, friction modifiers and solids are added to oil to meet specific application requirements.
- Polymer acts like a sponge releasing and absorbing oil. Oil is released from polymer through capillary action and is transferred to metal surface.
- As film of oil on the surface decreases, polymer releases more oil. If excess oil is present, it is reabsorbed by polymer.
- As temperatures increase, more oil is released, then reabsorbed as temperature decreases.
- If MPL's upper temperature limit is exceeded, polymer softens and can be ejected from bearings.
- MPLs do not dissipate heat rapidly; as a result, there are rotational speed limitations based on bearing type and size.

12/2023