

High and Mid Phosphorus Technical Data

Mil-C-26074, AMS-2404, RoHS compliant - All coatings are FDA Approved and RoHS Compliant

TECHNICAL DATA		
Property	Mid Phos.	High Phos
Composition	6 to 9% P, balance Ni	10 to 12% P, balance Ni
Structure	Mixed crystalline and amorphous	Amorphous
Internal Stress	±30 MPa	±30 MPa
Melting Point (Eutectic)	890-1450° C	890-1450° C
Density	8.1 g/cm ³	7.8 g/cm ³
Coefficient of Thermal Expansion	13.0 μ m/m/C°	12.0 μ m/m/C°
Electrical Resistivity	75 μ ohm - cm	100 μ ohm - cm
Thermal Conductivity	0.1 W/cm-K	0.08 W/cm-K
Magnetic Coercivity	110 A/m	0
Tensile Strength	700 MPa	800 MPa
Ductility	>0.70%	>1.50%
Modulus of Elasticity	150 GPa	200 GPa
Hardness, as deposited	550 HV100	450 HV100
Hardness, heat treated	1000 HV100	1000 HV100
Coefficient of Friction (Unlubricated)	0.38	0.4
Taber Wear Index, as deposited	16 mg/1,000 cycles	19 mg/1,000 cycles
Taber Wear Index, heat treated	12 mg/1,000 cycles	12 mg/1,000 cycles
Corrosion Protection, salt fog resistance	96 hours	1,000 hours