Castolin Eutectic®
Eutectic Castolin

Low Temperature Thermoplastic Powder
for use with the
TeroDyn® 2000/3000 Systems

Eutectic® 5018

- Excellent chemical resistance and frictional characteristics
- Good impact resistance and thermal properties
- Good machinability (turning)

Eutectic® 5018

Eutectic 5018 is a thermoplastic polymer powder applied as a top coating, sealer or lining for the protection of industrial equipment. 5018 is suitable for use with Castolin Eutectic's TeroDyn 2000 or the TeroDyn 3000 combustion thermal spray systems. For either delivery system, the low temperature air shroud should be used. 5018 can be applied with the TeroDyn 2000 using acetylene as the fuel gas. The TecFlo 2000 Hopper is also required. It can be applied with the TeroDyn 3000 using acetylene, propane or propylene as the fuel gas and argon, nitrogen or air as the powder carrier gas.

TECHNICAL DATA

Typical Powder Properties	
Polymer Type:	Thermoplastic
Melting Point:	367°F (186°C)
Color:	White

Typical Coating Properties	
Melting Range:	360°F - 370°F (182°C - 188°C)
Coating Density:	1.1 g/cc
Shear Strength (ASTM D732):	5500 psi
Coefficient of Friction:	0.2 against Steel
Yield Strength:	4500 psi
Elongation:	18%
Specific Heat:	2:1 kJ/kg°k
Thermal Conductivity:	0.3 W/m°k
Coefficient of Linear Expansion:	1.5x10^-4
Volume Resistivity:	3.5x1017 M/m
Dielectric Strength:	1000 V/mil
Powder Coverage:	0.0072 lb/ft² @ 0.001“
Hardness:	Durometer 75D

Chemical Resistance	
Boiling Water:	Excellent adhesion after 2000 hours
Salt Spray:	No corrosion after 2000 hours
Sea Water:	No corrosion after 6 years

TYPICAL APPLICATIONS

- As a protective coating on chemical mixer blades
- As a sealer for cold process coatings
- For relining copy machines and other roll applications
- As a top coat/sealer for corrosion control coatings
- For surfacing printing rolls
- For relining impellers and pumps used in sewage treatment plants

Observe normal spraying practices, respiratory protection and proper air flow pattern advised. For general spray practices, see AWS Publications AWS C2. 1-73, "Recommended Safe Practices for Thermal Spraying and AWS TSS-85, "Thermal Spraying, Practice, Theory and Application." Thermal spraying is a completely safe process when performed in accordance with proper safety measures. Become familiar with local safety regulations before starting spray operations.DO NOT operate your spraying equipment or use the spray material supplied, before you have thoroughly read the equipment instruction manual. Refer to the Eutectic website for Material Safety Data Sheet (MSDS) information. DISREGARDING THESE INSTRUCTIONS MAY BE HAZARDOUS TO YOUR HEALTH.

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11-2022