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XIOM 700-03-12

Description:

Fusion Bonded Epoxy (FBE) / polyamide co-polymer powder modified for thermal spray processing. Designed to provide on-site sprayed FBE equivalent coatings to replace fluidized bed, hot rock or electrostatic/hot spray coatings.

XT 700-03-12 coatings have excellent abrasion and wear characteristics and are intended for interior applications or as a bond coating for polyolefin top coatings. Coatings have excellent adhesion up to 15 mils thick with good solvent and chemical resistance plus minimal shrinkage and edge pull back.

Application Data:

Surface preparation

Refer to the Coatings Manual for proper substrate preparation. Each substrate material, i.e. steel, aluminum, masonry, fiberglass, wood, tile, plastics etc. requires special considerations before spraying. Typically, prior to spraying all substrates should be cleaned and degreased. Some roughening is advisable for thick coatings. Liquid primers are not required when surface is properly prepared and application is interior or covered.

Thermal spraying

Refer to XIOM's Thermal Spray Manual for detailed processing guidelines. Before spraying, the surface to be coated should be heated to approximately 180^0 F. The spray torch or other heating device can be used. Begin spray immediately; the surface temperature will rise to 200^0 F plus during spray as the plastic stream melts (wets) on impact forming a continuous cured film. No bond coating required when this procedure is followed. See Coatings Manual for 2 pass spray technique.

Technical Specifications:

Typical Powder Information	Fine powder specially sized for thermal spray
Coverage (90% efficiency)	138 sq ft/ lb. / mil, calculated
Particle size	50% between 44 and 150 um
VOC content	None
Thickness (recommended)	5-15 mils, thicker if required.
Storage stability	Unlimited shelf life if stored < 90^0 F

Coating Performance Properties:

Coating Performance Properties	Testing Method	Results
Specific gravity	Calculated	1.42 g/cc
Adhesion		
Hardness (Shore D)		
Impact resistance (direct)	ASTM D2794 5/8". Indenter	160 in. lbs
Flexibility 1/2" dia. bar, room temp.	-	180^0 no cracks, no loss of bond or chipping
Tensile, PSI (Instron) yield		
Taber abrasion	ASTM D 4060	25 mg loss, CS-10 wheels 1000 gm load, 1000 cycles
Service temperature		290^0F to 325^0 F
Flammability	ISO 3795	DNI. Self extinguishes

Material Spray Parameters:

n/a

Comments:

Limited colors are available.

Coating Characteristics:

- Shows no deterioration in properties when exposed to most acid corrosives, aliphatic and aromatic hydrocarbons, bases, oils, greases and petroleum products.
- Has cavitation erosion resistance greater than neat FBE.
- Low moisture absorption.
- Not intended for high UV exposure or exterior applications.
- High impact, wear and abrasion resistance.
- Not approved for water/food contact.

- High flexibility.
- Replaces FBE for pipeline corrosion resistant coatings. As bond coat accepts polyolefin topcoats.
- Highly durable and offer long-lasting corrosion protection for metals against many acids and bases.

Health and Safety:

XIOM 700-03-12 is supplied as a finely divided powder. While there are no known health hazards associated with this powder, normal precautions for dealing with fine organic powders should be taken, i.e., excessive dust generation and inhaling of the powder should be avoided. Always wear a proper dust mask and adjust facilities for removing excess dust from the working area during handling.

Before thermal spraying, refer to the MSDS and Thermal Spray Manual for proper precautions to avoid exposure to polyamide combustion products.

It should be appreciated that the information given here is, to the best of our knowledge, true and accurate. However, since conditions under which our materials and equipment may be used are beyond our control, recommendations are made without warranty or guarantee.

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For ordering information, please contact your regional distributor.