

Technical Data Sheet

BTUF®-212

Product Description

BTUF®-212 is Fusion Bonded Epoxy powder that can be applied on buried steel pipeline as primer of external 3LPP, 3LPE and Dual-layer FBE coating system, also can be applied Single layer FBE. BTUF®-212 has excellent corrosion resistance and mechanical properties. The recommended thickness is 150-500µm (6-20 mils). The recommended Operating Temperature Range shall be 73°C to 110°C.

Technical Regulation

BTUF®-212 meet with most of international specification and standards, such as ISO 21809, DIN 30670, DIN 30678, CAN/CSA Z 245.20, CAN/CSA Z 245.21, AS 3862 and NACE RP0394.

Material Properties

Properties	Typical	Requirement	Test Method
Gel time (200°C)	13s	≥12s	ISO 8130-6
Curing time (200°C)	≤3min	≤3.0min	ASTM D4217
Density (g/cm³)	1.42	1.30-1.50	ASTM D 795
Particle size 150µm on screen	1.01%	≤3.0%	ASTM D 1921
Particle size 250µm on screen	0.02%	≤0.2%	ASTM D 1921
Coverage	28m²/kg(25µm)		
Moisture content	0.33	≤0.6%	ASTM D4017
Color	Green(adjustable)		Visual
Thermal characteristics Heat release	56.87J/g	≥45J/g	CAN/CSA 245.20
Thermal characteristics Tg2	101.63°C	≥98°C	CAN/CSA 245.20

Coating Properties

Properties	Typical	Requirement	Test Method
Flexibility (-20°C, 2.5°)	No cracks	No cracks	NACE RP0394 Appendix H
Adhesion	Rating 1	Rating 1-3	NACE RP0394 Appendix J
Cathodic Disbonding (65°C, 1.5V, 48h)	2.6 mm	≤5.0 mm	NACE RP0394 Appendix F

Cathodic Disbonding (65°C, 1.5V, 30d)	13.5mm	≤15 mm	NACE RP0394 Appendix F
Impact Resistance (300-400um, -30 °C, 1.5J)	No failure	No failure	ASTM G14-04
Interfacial Porosity	2 Class	1-4 Class	NACE RP 0394 Appendix G
Cross-section Porosity	1-2 Class	1-4 Class	NACE RP 0394 Appendix G
Abrasion Resistance (by falling abrasive)	≥3 L/μm	≥3 L/μm	
Hot Water Resistance (24h, 75°C / 28d, 75°C)	1 Rating	1 Rating	CSA Z245.20 Section 12.14
Electric Strength	≥30 MV/m	≥30 MV/m	ASTM D149
Volume Resistivity	≥1×10 ¹³ Ω·m	1×10 ¹³ Ω·m	ASTM D257

Application Parameter

Parameter Name	Typical Requirements
Surface Treatment	Sa 2.5 according SSPC SP 10
Surface Roughness	Anchor profile, 50-100μm
Recommended Thickness	150-500μm (6-20 mils)
Recommended Application Temperature	195~240 °C(3LPE/PP), 230~250 °C(Single layer FBE)

Package

Packing by sealed plastic bag and carton.
Net weight 25kg.

Storage

Shall be stored in dry, shady and cool, draughty condition away from heat and fire source. Storage temperature should not exceed 25°C. Relative humidity should not exceed 65%.

The packaging container shall be kept alright and avoid being undone.

Shelf life: one year in such condition with intact package.

Date of Issue

May 2020

REV. 03