Technical Data Sheet

TAFF® -807

Product Description

TAFF®-807 is a fusion-bounded epoxy powder internal coating for OCTG with excellent wear resistant performance. It needs to be used with TAFF®-523 primer.

Recommended Use

TAFF®-807 is a thick film anti-bias epoxy powder coating. It has excellent wear resistance, adhesion and flexibility. Suitable for corrosive environment containing CO^2, oil, water, salt water and medium acid/alkali; The coating has a smooth surface and high gloss, improving fluid efficiency. Repeated use can also keep the coating intact, can effectively improve the flow rate, and can be used to recoat the old pipe, extend the service life of the pipe.

Material Properties

	Test Result	Test Method
Gel time (200℃)	100-180 s	ISO 8130-6
Curing time (202±3℃)	60 min	ASTM D4217
Density (g/cm3)	1.50±0.05	ASTM D 795
Particle size 150μm on screen	≤3%	ASTM D 1921
Particle size 250μm on screen	≤0.2%	ASTM D 1921
Coverage	25m^2/kg(25μm)	
Moisture content	≤0.5%	ASTM D4017
Color	Blue	Visual
Thermal characteristics Heat release	30 - 50J/g	CAN/CSA 245.20
Thermal characteristics Tg2	> 105℃	CAN/CSA 245.20

Coating Properties

	Test Result	Test Method
Flexibility (23℃, 2.5°/PD)	No cracks	NACE RP0394 Appendix H
Abrasion Resistance (CS17,1000g, 1000rpm) (CS17,1000g, 5000rpm)	 Weight loss≤30mg Weight loss≤120mg	ASTM D4060
Impact (300-400μm, -30℃)	> 5J	ASTM G14
Adhesion strength at 73℉ (23℃)	≥4500psi/cm^2	ASTM D 4541-09
Hot water immersion(95℃,90d)	Rating 1	NACERP0394 Appendix J

Oil water mixture immersion(80℃,30d)	Rating 1	
Simulated sea water immersion (95℃,60d)	Rating 1	
Autoclave Test		
1. 120℃, 30MPa, pH=12.5,	16h,Coating in good condition, no change	NACE TM0185-2006
2. 93℃, 14MPa, gas phase: PCO_2=1MPa, CH4, liquid phase: 5% NaCl	48h, Coating in good condition, no change	NACE TM0185-2006
Interface porosity	Rating 1	NACERP0394 Appendix G
Cross-section porosity	Rating 1	NACERP0394 Appendix G

Resistance to chemical media		
1. 90 days, 23±3℃, 10%HCl	Coating in good condition, no change	ASTM G20-10
2. 90 days, 23±3℃, 10%H_2SO_4	Coating in good condition, no change	ASTM G20-10
3. 90 days, 23±3℃, 6%HF	Coating in good condition, no change	ASTM G20-10
4. 90 days, 23±3℃, Toluene	Coating in good condition, no change	ASTM G20-10
5. 90 days, 23±3℃, 10% NaCl	Coating in good condition, no change	ASTM G20-10

Applicable Scope

Maximum working temperature	≤212℉（100℃）
Working pressure	Till pipe yield
Recommended dry film thickness	250~400μm
Main applicable scope	Production oil pipe, under/above well equipment and line pipe
Main service condition	Injection well, CO^2 secondary oil recovery, anti-rod bias wear
Limited service condition	Temperature above 212℉（100℃）

Surface Preparation

1. The surface to be coated shall be dry, clean and with no contamination. Heat cleaning can be adopted when necessary to remove the oxide skin, oil and grease.
2. Sand blasted till Sa2.5 （ISO 8501-1:2007/SSPC-S10）. Surface profile shall be between 35-75um.

Application Condition

1. Recommended application environment temperature shall be between 5℃~40℃, otherwise coating shall be re-evaluated to ensure the performance of the coating.
2. Recommended application environment relative humidity shall be less than 85%, otherwise application shall not proceed until measures are taken to reduce the relative humidity.

Application Method

1. Primer shall be applied with high speed rotary cup spraying;
2. TAFF®-807 shall be applied with vacuum adsorption or venturi pump method.

Application Parameter

1.Primer shall be cured under 180℃~220℃ for 45min-1h after application;
2.The surface temperature of items shall not be lower than 160℃ during the Topcoat powder application;
3.Top coat shall be cured under 180℃~210℃ for 45min-1.0h.

Storage Condition

The product must be stored in accordance with state regulations. Storage environment shall be well ventilated, cool, dry, away from fire and heat. Packaging containers must be closed and avoid being undone.
The unused part shall be well packed and stored to avoid getting damped.
Shelf life: one year in the storage conditions required by the manufacturer and with intact packaging.

Handling

Hand with care. Operate as instructed on packing before use.

Packing

25kg carton package.
Packing can be different in different countries according to local requirement.

Health and Safety

Please observe the precautionary notices displayed on the container. Use under well ventilated conditions.

Date of Issue

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