Nap-Gard®

7-0015 Tan Internal Pipe Coating FBE

Revised: 10 October 2022

DESCRIPTION

Nap-Gard® 7-0015 is a fusion bonded epoxy powder designed to provide reliable corrosion protection in severe down hole environments. Nap-Gard 7-0015 is formulated to provide an excellent flexibility and reliable corrosion protection for different line pipes and pumps. Nap-Gard 7-0015 is generally recommended for use over a phenolic primer (Nap-Gard 7-1808 Red Phenolic Liquid Primer) †.

TYPICAL POWDER PROPERTIES

Color:	Tan	**Theoretical Coverage:**	113 Ft^2/lb./mil
Specific Gravity:	1.70 ± 0.05	**Density:** CSA Z245.20-22	1700 ± 50 g/L
Typical Gel Time: CSA Z245.20-22 @ 205°C (401°F)	55 ± 11 seconds	**Shelf Life:** Below 25°C (77°F) and 50% RH	18 months

TYPICAL PROPERTIES OF APPLIED FILM††

Recommended Film Thickness		Average Minimum	500µm (20 mils) 250µm (10 mils)
Glass Transition Temperature (Tg_3) DSC	~110°C (230°F)		

TEST / REQUIREMENT	METHOD	CRITERIA	RESULT
Bending	CSA Z245.20-22	>5.8°/dia. Length @25°C	Pass
Hardness	ASTM D2583 ASTM D2240	Barcol Shore D	69 Average 88 Average
Taber Abrasion	ASTM D4060	C17 wheel, 1Kg, 1000 Cycles	87 mg removal

AUTOCLAVE TESTING (Saudi Aramco 09-SAMSS-091)

Wasia Water Service

Gas Phase	Temperature	Pressure	Duration	Results
100% CO_2	95°C (203°F)	3000 psi	24 Hrs.	Pass all phases No blisters No cracking No adhesion loss No delamination No swelling
Aqueous Phase Wasia water				

Brine Reinjection Wet, Sour Gas or Crude

Gas Phase	Temperature	Pressure	Duration	Results
3 mole% CO_2, 3 mole% H_2S 94% mole% Methane	95°C (203°F)	3000 psi	24 Hrs.	Pass all phases No blisters No cracking No adhesion loss No delamination No swelling
Aqueous Phase Formation water brine				

RECOMMENDED APPLICATION PARAMETERS

Surface Preparation	NACE SSPC Swedish Standard	#1 White Metal SP-5 Sa 3
Anchor Profile	Recommended Range Nominal	1.5 mils (38µm) - 3.5 mils (89µm) 2.5 mils (64µm), sharp, dense
Liquid Phenolic Primer Dry Film Thickness	Recommended Range	0.5 mils (13µm) - 1.0 mils (25µm)
Cured Powder Film Thickness	Recommended Range	10 mils (250µm) - 20 mils (500µm)
Preheat Temperature	Recommended Part Surface Temperature Range	375°F (191°C) - 425°F (218°C)
Cure Schedule	Recommended Oven Temperature Time Required for Full Cure	375°F (191°C) – 20 min 400°F (205°C) – 15 min 425°F (218°C) – 12 min

TRANSPORTATION AND STORAGE

The material is stable during transportation and storage at temperatures below 25°C (77°F) and 50% RH.

Always consult product Safety Data Sheet (SDS) prior to handling.