

Nap-Gard[®] 7-0010 Extra Tough Internal FBE

Technical Information Sheet

Nap-Gard[®] 7-0010 is an abrasion resistant fusion-bonded epoxy (FBE) coating designed for use as an internal lining on steel piping assets transporting aggressive media, including slurries and heavy crude oil with high sand content. 7-0010 is also recommended for rod-lift and "blast joint" applications.

POWDER PROPERTIES

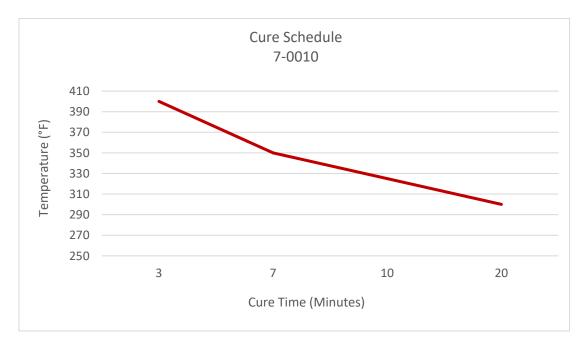
Color	Grey	Theoretical Coverage	122 ft ² /lb./mil
Specific Gravity	1.57± .05	Density CSA Z245.20-22	1570 ± 50 g/L
Gel Time CSA Z245.20-22 @ 204°C (401°F)	55 ± 11 seconds	Shelf Life* @ 25°C (77°F) @ 50% RH	12 months

STORAGE AND APPLICATION RECOMMENDATIONS

Transportation and Storage		This material is stable during transportation at temperatures below 25°C (77°F) and 50% RH. Always consult product Safety Data Sheet (SDS) prior to handling.		
Recommended Cured Film Thickness	Minimum Maximum Average	250μm (10 mils) 500μm (20 mils) 375μm (15 mils)		

Cure Schedule

Refer to the appropriate Nap-Gard^{*} Application Guide for complete recommended application parameters.







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PERFORMANCE PROPERTIES OF APPLIED FILM⁺

TEST	METHOD	CRITERIA	RESULT
Flexibility	CSA Z245.20-22	@-30°C (-22°F)	Pass 2.5° PPD @ 500μm (20 mils)
Adhesion	SAMSS 091-99	No Peeling	Pass
Hot Water Soak Adhesion	CSA Z245.20-22	@88ºC (190°F) 28 days	Rating 1
Taber Abrasion	ASTM D4060	CS17 wheel, 1 Kg weight 5000 cycles	45-55 mg removed
Heat Distortion Resistance	CSA Z245.20-22	Clause 12.7	$Tg_3 = 112^{\circ}C \pm 4^{\circ}C$

CHEMICAL RESISTANCE†

AUTOCLAVE						
Standard	Duration	Temperature	Pressure	Phase	Results	
SAMSS-091-18			3000 psi	<u>Gas Phase</u>	Pass all phases	
	24 hrs.	95°C (203°F)		100% CO2	No blisters No cracking	
	24 1113.			Aqueous Phase	No adhesion loss No delamination	
				Wasia Water	No swelling	
			3000 psi	<u>Gas Phase</u>	Pass all phases No blisters	
		95°C (203°F)		3% CO2		
				3% H ₂ S	No cracking	
SAMSS-091-18	24 hrs.			Balance CH ₄	No adhesion loss No delamination No swelling	
				Aqueous Phase		
				Formation Water Brine		
CUSTOM SPEC		38°C(100°F)	3000 psi	<u>Gas Phase</u>	Pass all phases	
	48 hrs.			100% N ₂	No blisters No cracking	
	- 0 113.			Aqueous Phase	No adhesion loss No delamination	
				Tap Water	No swelling	

⁺ Performance depends on many factors, including film thickness. Consult a Nap-Gard[®] Specialist for specific recommendations.

