

Product Data Sheet

PHOEPOX® 4402

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November 2015



Phoepox® 4402

is a fusion bonded epoxy powder that is designed for the internal corrosion protection of line pipes and fittings from seawater, saline water and industrial water.

Phoepox® 4402 can be either applied together with a phenolic primer or as a stand-alone coating.

			Typical Value	Test Method / Device	
POWDER PROPERTIES	GEL TIME	at 200°C	60-85 sec	ISO 8130-6	
	THERMAL PROPERTY	Tg1		60 ± 5°C	ISO 21809-2
		Tg2		101 ± 5°C	
		ΔH		30-70 J/g	
	DENSITY			1.5 ± 0.1 g/cm ³	Gas Pycnometer
	PARTICLE SIZE			99.8% < 160 μm	Laser Scattering
	MOISTURE CONTENT			≤ 0.5%	CSA Z245.20-06
COLOR			Grey		
PHYSICAL TESTS	CATHODIC DISBONDING *	1-3 mm at -3.5VDC, 65°C, 24 hours 2-5 mm at -1.5 VDC, 20°C, 28 days		CSA Z245.20-06	
	HOT WATER SOAK	Rating 1 at 75°C, 24 hours		CSA Z245.20-06	
	FLEXIBILITY	Pass, at 3°, -30°C		CSA Z245.20-06	
	SALT SPRAY TEST	No blistering at 50°C, 5 months		ASTM B117	



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IMPACT	≥ 5J	CSA Z245.20-06
ABRASION (TABER)	≤ 50 mg	ASTM D4060, at CS 17 wheel, 1000 cycles
STORAGE STABILITY	12 months from production date in ≤ 23°C and ≤ 65% relative humidity. Cooler temperatures and lower humidity are recommended.	

* The performance will be affected by surface preparation and curing condition.

APPLICATION DATA

SUBSTRATE	Mild steel
SURFACE PREPARATION	Surface must be free from contamination and blasted as defined by Swedish Sa 2½
SURFACE ROUGHNESS	45-100 µm
RECOMMENDED FILM THICKNESS	200-300 µm
APPLICATION TEMPERATURE	190-218°C
POST CURE CONDITIONS	220°C, 12 min