

Product Data Sheet

PHOEPOX® 4405

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Marts 2020



Phoepox® 4405 is a fusion-bonded epoxy powder designed for the internal coating of pipes and fittings that require a combination of corrosion-resistance and abrasion-resistance such as sewage lines and certain types of slurry lines.

			Typical Value	Test Method / Device
POWDER PROPERTIES	GEL TIME	at 200°C	80-170 seconds	ISO 8130-6
	THERMAL PROPERTY	Tg1	60 ± 5°C	ISO 21809-2
		Tg2	103 ± 5°C	
		ΔH	30-70 J/g	
	DENSITY		1.6 ± 0.1 g/cm ³	Gas Pycnometer
	PARTICLE SIZE		99.8% < 250 μm	Laser Scattering
	MOISTURE CONTENT		≤ 0.5%	CSA Z245.20-06
COLOR		Red- Brown or Grey		
PHYSICAL TESTS	CATHODIC DISBONDING	1-3 mm at -3.5 VDC, 65°C, 24 hours 3-5 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
	IMPACT	≥ 10J		CSA Z245.20-06
	ABRASION (TABER)	≤ 50 mg		ASTM D4060, at CS 17 wheel 1000 cycles
	GOUGE TEST	Pass		R33 TC Burr, 40 kg load



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STORAGE STABILITY 12 months from production date in $\leq 23^{\circ}\text{C}$ and $\leq 65\%$ 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	400-1200 μm
APPLICATION TEMPERATURE	190-218°C
POST CURE CONDITIONS	220°C, 12 min.