Product Data Sheet PHOEPOX® 4450

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November 2017



Phoepox® 4450

is a fusion bonded epoxy-modified powder that is designed for the internal lining of line pipe, tubings and fittings. This grade can withstand severe conditions (sour crude, sour gas and brine water). Phoepox® 4450 is suitable for operating temperatures up to 85°C.

| | | | Typical Value | Test Method / Device |
|----------------------|------------------|----------------------------|-------------------------------|----------------------|
| POWDER PROPERTIES | GEL TIME | at 200°C | 80-180 seconds | ISO 8130-6 |
| | THERMAL PROPERTY | Tg1 | 60 ± 5 °C | ISO 21809-1 |
| | | Tg2 | 102 ± 5 °C | ISO 21809-1 |
| | | ΔΗ | 30-70 J/g | ISO 21809-1 |
| | DENSITY | | $1.55 \pm 0.1 \text{ g/cm}^3$ | Gas Pycnometer |
| | PARTICLE SIZE | | 99.8% < 250 μm | Laser Scattering |
| | MOISTURE CONTENT | | ≤ 0.5% | CSA Z245.20-06 |
| | COLOR | | Grey | |
| PHYSICAL TESTS | ADHESION* | Rating 1 at 75°C, 24 hours | | CSA Z245.20-06 |
| | FLEXIBILITY* | Pass, at 2°PPD, -30°C | | CSA Z245.20-06 |
| | IMPACT | \geq 3 J at -30°C | | CSA Z245.20-06 |



Engineered Materials for a Modern World.

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STORAGE STABILITY 12 months from production date in

 \leq 23°C and \leq 65% relative humidity. Cooler temperatures and lower humidity are recommended.

| APPLICATION | |
|--------------------|--|
| ΠΔΤΔ | |

SURFACE PREPARATION Surface must be free from contamination and

blasted as defined by swedish Sa 2½

SURFACE ROUGHNESS 50-100 µm

RECOMMENDED FILM THICKNESS

 $250-600 \mu m$

APPLICATION TEMPERATURE

150-240°C

POST CURE CONDITIONS

 $\Delta Tg \leq 2$

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