

Epoxy Phenolic 175 × 2 coats

IPC-PT-CR-2L-01-SS · Processing — Chemical-Resistant Novolac Lining System

 2 COATS SYSTEM BUILD · NUMBER OF COATS	 Im1 · CHEM ISO 12944-2:2017 ENVIRONMENT	 600 µm TOTAL SYSTEM DFT	 HIGH EXPECTED DURABILITY · 15–25 YRS	 Sa 2½ SURFACE PREPARATION GRADE
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DESCRIPTION

A solvent-free epoxy phenolic novolac (EPN) lining applied in two coats for severe chemical service. The multifunctional novolac polymer develops a very high cross-link density, giving outstanding resistance to mineral acids, alkalis and solvents, and water immersion resistance up to 120 °C.

Epoxy Phenolic 175 — Two-component, solvent free epoxy phenolic novolac coating cured with a modified cycloaliphatic amine. Verified by 117-day immersion testing (SCS Report S/211019): continuous immersion in 15% hydrochloric acid, 20% sodium hydroxide, 20% ammonium hydroxide and de-ionised water; splash/spill service for 20% sulphuric and nitric acids.

SYSTEM BREAKDOWN

SYSTEM BUILD — LAYER · VOLUME SOLIDS · DFT · THEORETICAL YIELD					
Layer	Product	Vol. Solids	DFT	Theoretical Yield ¹	Comments
1st coat	Epoxy Phenolic 175	100%	300 µm	3.33 m²/L @ 300 µm	WFT = DFT (solvent free)
2nd coat	Epoxy Phenolic 175	100%	300 µm	3.33 m²/L @ 300 µm	Overcoat 8 h @ 25 °C; max 48 h without abrasion
TOTAL	Total system dry film thickness		600 µm		

¹ Theoretical yield = Volume Solids × 10 ÷ DFT (µm), per product TDS — allow for application loss factors.

SURFACE PREPARATION

Steel: abrasive blast clean to Sa 2½ (ISO 8501-1:2007) / SSPC-SP6, profile 40–75 µm; re-blast any oxidation before application. Immersion service: soluble salts ≤ 20 mg/m². Concrete: remove laitance by light abrasive blasting; fill defects. Cure at minimum 20 °C for 7 days for optimum chemical resistance.

OVERCOATING INTERVALS

DRYING & OVERCOATING — SUBSTRATE TEMPERATURE AS STATED			
Product	Minimum	Maximum	If window exceeded / notes
Epoxy Phenolic 175 (each coat)	8 h @ 25 °C	48 h	After 48 h mechanically abrade the surface before recoating; cure ≥20 °C for 7 days for full chemical resistance

Overcoating information is a guide only and is subject to climate and site conditions — the product TDS governs.

INTENDED USES & BENEFITS

- Lining of steel and concrete tanks, bund walls, culverts and pipe interiors
- Floors, walls and equipment exposed to chemical splash and fumes
- Immersion in aqueous slurries — excellent erosion and abrasion resistance
- Acid plants, chemical processing, effluent and wastewater service

ISO 12944 CLASSIFICATION & EXPECTED DURABILITY

Environment classification	Im1 / chemical immersion service; C5 splash & fume zones (ISO 12944-2:2017)
Expected durability	High (15–25 years, ISO 12944-1:2017)

Chemical suitability verified by 117-day immersion testing (SCS Report S/211019, ASTM D4787 / D714); durability statement is a Specialized Coating Systems technical assessment for correctly cured linings.

NOTE: All products shall be applied according to the instructions and within the application parameters given on the Speccoats™ Technical Data Sheet (TDS) for each product — the TDS governs in any conflict. Expected durability = time to first major maintenance (ISO 12944-1:2017), not a guarantee.