



PRODUCT INFORMATION

CE-279

04/20 Supersedes 10/18

PENNTROWEL™ NOVOLAC L/F LINING SYSTEM SILICA AND CARBON GRADE

DESCRIPTION

PENNTROWEL Novolac L/F System is a multilayer mat reinforced, trowel applied laminate lining/flooring (L/F) system formulated with high functional novolac epoxy resin and select fillers. It is suitable for chemical immersion or secondary containment service and outperforms unreinforced and unfilled systems under physical stress—thermal cycling, vehicular traffic, impact, abrasion and more. Silica Grade features silica fillers and woven fiberglass mat reinforcement that are suitable for a broad range of acids, alkalis and solvents. Carbon Grade features silica-free fillers and reinforcing fabric more suitable for fluoride and hot caustic soda service. Consult ErgonArmor specification CES-352 for complete installation details.

AREAS OF USE

PENNTROWEL Novolac L/F Lining is used to protect concrete and steel substrates that are subject to immersion in a variety of acids, alkalis and solvents, or a combination of chemical, mechanical and thermal loads such as

- Trenches
- Sumps and pits
- Tanks and process vessels
- Manholes and lift stations
- Floors
- Truck spots
- Decontamination/laydown pads

OUTSTANDING FEATURES

- Low absorption
- Low shrinkage
- Crack-bridging
- Durable and resilient under stress
- Resistant to traffic and wear and tear
- 100% reactive – no VOCs

TYPICAL PHYSICAL PROPERTIES

PROPERTY	SILICA	CARBON
Wet Density	113 lb/ft ³	104 lb/ft ³
Compressive Strength (ASTM C579)	>12,000 psi	>11,500 psi
Tensile Strength (ASTM C307)	>2,000 psi	>2,500 psi
Coefficient of Expansion (ASTM C531)	3.2 x 10 ⁻⁵ /°F	3.5 x10 ⁻⁵ /°F
Shrinkage (ASTM C531)	0.05%	0.04%
Modulus of Elasticity (ASTM C580)	9.4 x 10 ⁵ psi	7.0 x 10 ⁵ psi
Flexural Strength (ASTM C580)	5,500 psi	6,000 psi
Mix Ratio - Resin: Hardener: Filler	1.0: 0.51: 3.5	1.0: 0.51: 2.3
Service Temperature Limit (Depending on chemical exposure)	180°F - 220°F	180°F - 220°F
Work life / set time at 70°F	25 - 35 minutes / 3 - 4 hours	

ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE

STEP	PRODUCT	CODE	PACKAGING	COVERAGE*
Primer	Penntrowel Epoxy Primer	19676	4 x 1 gal units/case	700 sf/case (150 sf/gal) at 9 mils WFT
Silica L/F Base Coat	6710 Resin 6711 Hardener L/F Filler - Silica	19591 19593 19642	4 x 7.8 lb (0.8 gal) cans/case 4 x 4.0 lb (0.5 gal) cans/case 2 x 55 lb bags 157 lb unit (1.4 cu ft)	267 sf at 1/16 in. WFT per 157 lb unit
Cloth	L/F Reinforcing Mat	19513	38 in. x 400 ft (1200 sf) roll	1200 sf per roll
Saturant for cloth	6710 Resin 6711 Hardener	19591 19593	4 x 7.8 lb (0.8 gal) cans/case 4 x 4.0 lb (0.5 gal) cans/case	520 sf per case of 4 x 11.8 lb (1.3 gal) units
Silica L/F Build Coat	Use same product codes packaging and coverages as for Base Coat information above.			
For PENNTROWEL Novolac L/F Carbon Grade, substitute the following for Base Coat/Cloth layers above				
Carbon L/F Base Coat	6710 Resin 6711 Hardener L/F Filler - Carbon	19591 19593 29446	4 x 7.8 lb (0.8 gal) cans/case 4 x 4.0 lb (0.5gal) cans/case 2 x 36 lb bags 119 lb unit (1.15 cu ft)	A 119 lb unit covers 228 sf at 1/16 in. WFT
Reinforcing Mat for Carbon Grade	Synthetic veil (for carbon grade system)	21925	48 in. x 500 yd (6000 sf) roll	6000 sf per roll
Carbon L/F Build Coat	Use same product codes packaging and coverages as for Carbon L/F Base Coat information above.			

*Coverages are theoretical and do not allow for surface irregularity, pail loss and normal overage allowances.

SAFETY PRECAUTIONS / DISCLAIMER

Mixes and applications of this product present a number of hazards. Read and follow the hazard information, precautions and first aid directions on the individual product labels and safety data sheets before using. While all statements, technical information, and recommendations contained herein are based on information our company believes to be reliable, nothing contained herein shall constitute any warranty, express or implied, with respect to the products and/or services described herein and any such warranties are expressly disclaimed. We recommend that the prospective purchaser or user independently determine the suitability of our product(s) for their intended use. No statement, information or recommendation with respect to our products, whether contained herein or otherwise communicated, shall be legally binding upon us unless expressly set forth in a written agreement between us and the purchaser/user. For all Terms and Conditions of Sale see ergonarmor.com.



ErgonArmor
TECHNICAL COATING SOLUTIONS™

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