Penntrowel™ Novolac 60/60MR Lining System

SELECTION & SPECIFICATION DATA

Type

60 mil (1.5 mm) novolac epoxy lining

Description

Penntrowel Novolac 60/60MR Lining System is a 60 mil (1.5 mm) trowel applied high functional novolac epoxy lining/flooring system suitable for severe chemical service conditions. The optional 60MR version incorporates a 1-oz. glass mat reinforcement into the primer layer of the lining system.

The use of the Carbon Grade Filler is recommended for HF and strong caustic service. When using Caron Grade Filler and the optional MR version is specified, the use of the synthetic veil reinforcing mat is suggested.

Uses

- Trenches
- Sumps and pits
- Tanks and process vessels
- Floors

Features

- High functional novolac epoxy resin technology
- Crack bridging capabilities (optional MR system)
- Durable and resistant under repeated thermal stresses
- 100% reactive, no VOC's
- Optional carbon grade for hydrofluoric acid and strong caustic service
- Optional cold room hardener to allow curing as low as 40°F (4°C)

Limitations

Not for use beyond its chemical resistance capabilities. Consult Armor with specific questions.

INSTALLATION GUIDANCE

Reference Specifications

CES-365 Penntrowel 60/60MR Lining System Installation specification

Installation Conditions

Materials and substrate should be acclimated to an air temperature of between 50°F (10°C) and 90°F (32°C) during installation and cure. Installation temperature requirements can be lowered with optional cold room hardener.

Mixing/Use

Mix ratio for the silica grade Filler:Resin:Hardener is 3.5:1.0:0.51 by weight. Mix ratio carbon grade is Filler:Resin:Hardener (2.3:1.0:0.51 by weight. Consult packaging on page 2 for pre-proportioned component package sizes.

Empty Part A resin and Part B hardener into a clean mixing vessel and mix thoroughly using a slow speed drill with suitable blade mixer such as a Jiffler. Mix for 2 minutes minimum to insure full blending. Slowly add Part C Filler until fully wetted out. Apply by flat trowel over properly primed and prepared substrate. Apply basecoat to a nominal 1/16" (1.66 mm) thickness. Trowel lightly to smooth and close the surface. Allow to cure per cure time information below before putting into service.

When the 60MR version is specified, embed the 1-oz. mat into the wet primer layer. Apply additional neat catalyzed primer saturant onto the mat reinforcement. Spread evenly and use a serrated roller to eliminate bubbles and wrinkles. Use smaller pieces of mat for corners and intricate work. Allow mat reinforcing layer to set hard. Once cured apply the Penntrowel 60 build coat following mixing and usage instructions as described above.

Work Life

30-40 minutes at 70°F (21°C)

Cleanup

MEK or xylene

CURE TIME

Temperature	Initial Set	Full Cure
70°F (21°C)	3-4 hours	24 hours

SAFETY

Safety

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.

Ventilation

Provide thorough air circulation during and after application until the material has cured when used in enclosed areas.

Penntrowel™ Novolac 60/60MR Lining System

PACKAGING & ESTIMATING

Product	Code	Packaging
6710 Resin Gray	19591	4 x 7.8 lb/3.5 kg (0.8 gal/3.0 l) cans/cs
6711 Hardener	19593	4 x 4.0 lb/1.8 kg (0.5 gal/1.9 l) cans/cs
L/F Filler Silica	19642	55 lb (25 kg) bag
L/F Filler Carbon	29446	36 lb (16.3 kg) bag
1-oz. reinforcing mat	19639	50 in. x 375 ft (1500 sf/139 sm) roll
Synthetic veil reinforcing cloth	21925	48 in. x 500 yd (6000 sf/557 sm) roll

Theoretical Coverage

Silica grade: A 157 lb/1.39 cu ft (71.2 kg/39.4 l) unit consists of 1 case of resin, 1 case of hardener and 2 x 55 lb bags of filler and will cover 267 sf (24.8 sm) at 1/16" (1.6 mm) thickness.

Carbon grade: A 119 lb/1.14 cu ft (54 kg/32.3 l) unit consists of 1 case of resin, 1 case of hardener and 2 x 36 lb bags of filler and will cover 228 sf (21.2 sm) at 1/16" (1.6 mm) thickness.

When neat resin and hardener is mixed and used as a saturant for the reinforcing layer allow 520 sf (48.3 sm) per 5.2-gallon (19.7 l) unit.

Storage & Shelf Life

Maintain products in original packaging and sealed until ready for use. Estimated shelf life of components is 18-24 months when stored in a dry area at 70˚F (21˚C). Actual shelf life may vary with storage conditions.

If there is any question with respect to the quality of the components check reactivity prior to use. For assistance consult with Armor.

TYPICAL PHYSICAL PROPERTIES

Property	Typical Value
Color	Gray, special colors on request Carbon grade is black
Wet density, silica grade Wet density, carbon grade	110 lb/ft^3 (1,762 kg/m^3) 101 lb/ft^3 (1,618 kg/m^3)
Compressive strength, 7-day, ASTM C579	>7,500 psi (51.7 MPa)
Tensile strength, 7-day, ASTM C307	>1,500 psi (10.3 MPa)
Flexural strength, ASTM C580	>2,800 psi (19.3 MPa)
Bond to concrete, ASTM C321	Exceeds tensile strength of concrete
Shrinkage, ASTM C531	0.13%
Service temperature range, chemical dependent	180°F (82°C) - 210°F (99°C)

Rev 11/2025