Corrosion Engineering
A Division of ErgonArmor

PRODUCT INFORMATION

CE-272M
11/12 Supersedes 11/06

PENNTROWEL® N13 SURFACER

DESCRIPTION

PENNTROWEL N13 Surfacer is a heavy-duty trowel applied monolithic topping compound. Formulated from premium quality novolac epoxy resins, it resists severe chemical exposure including 98% sulfuric acid, 50% caustic, 37% hydrochloric acid, 20% nitric acid, tetrachloroethylene and other strong chemicals and solvents. When trowel applied to a 6 mm thickness over a suitably prepared concrete substrate, PENNTROWEL N13 Surfacer will provide a hard, dense, abrasion resistant, chemical-resistant and thermal shock resistant surfacer for concrete substrates. For heavy traffic, severe impact, and severe thermal shock areas, PENNTROWEL N13 may be specified at 9 mm thickness. PENNTROWEL N13 Surfacer is applied over PENNTROWEL Epoxy Primer. **Consult Corrosion Engineering specification CES-310 for complete usage/installation details.**

PENNTROWEL N13 Surfacer is designed to be used with an 'as troweled' finish. The surface can be top coated with PENNCOAT® 227 to adjust surface gloss if desired, and provide varying degrees of non-slip surface texture. Consult your Corrosion Engineering representative for specific details.

AREAS OF USE

Chemical resistant lining for concrete flooring where the thermal and mechanical advantages of a 6 mm monolithic combined with the chemical resistance of premium quality novolac resin technology is desired.

Chemical storage areas, chemical mix stations, and chemical tank farms.

Truck unloading pads.

A less expensive alternative to acid proof brick construction.

OUTSTANDING FEATURES

- Easy to mix - components are pre-measured.
- Mixed material trowels easily. May be installed by power troweling methods.
- Outstanding chemical resistance.
- Resists thermal shock.
- Excellent resistance to mechanical abuse.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	PENNTROWEL N13 Surfacer
Wet density	1.8
Compressive strength (ASTM C579) 1 day 28 days	69 MPa 88.3 MPa
Flexural strength (ASTM C580) 28 days	19.3 Mpa
Tensile strength (ASTM C307) 7 days	14.5 Mpa
Bond to concrete (ASTM C321)	Exceeds tensile strength of the concrete
Water absorption (ASTM C413)	0.3%
Coefficient of thermal expansion (ASTM C531)	2.5 X $10^{-5}/^{\circ}C$
Shrinkage (ASTM C531)	0.07%
Work life / Initial set time @ 21°C	30 - 45 minutes / 3.5 - 4 hours
Mix Ratio Resin:Hardener:Filler - By weight Mix Ratio Resin:Hardener - By volume	2:1:20 1.7:1
Color	Concrete gray

ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE

PRODUCT	CODE	PACKAGING	COVERAGE*
PT Epoxy Primer	--	as per data sheet CE-139	as per data sheet CE-139
6710 Resin Clear	50216	14 Kg pail	6710 Resin, 6711Hardener & Floor Surfacer Filler are combined as per above mix ratios and are applied as follows: 10.8 Kg/sm @ 6 mm 16.2 Kg/sm @ 9 mm
6711 Hardener	50217	7 Kg (2 x 3.5 Kg cans/case)	
PT Floor Surfacer Filler	50301	25 Kg bag	
For Vertical Surfaces substitute Penntrowel L/F Filler in place of Floor Surfacer Filler			
PT L/F Filler	50305	25 Kg bag	5.4 Kg/sm @ 3 mm

* Note: Consumption is theoretical and does not allow for surface irregularities, pail loss or normal wastage.

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 material 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.