Thinset™ Novolac Adhesive - Silica

SELECTION & SPECIFICATION DATA

Type

Novolac epoxy tile adhesive

Description

Thinset Novolac Adhesive - Silica is a 100% solids, 3-component silica-filled novolac epoxy tile and floor paver adhesive.

Uses

High strength bonding adhesive for tile, ceramic, brick, pavers, masonry and steel plates in food, beverage, pharmaceutical and chemical process areas subject to:

- Severe impact
- Thermal shock
- Strong sulfuric acid
- Strong caustic soda

Features

- Exceptional adhesive bond strength
- Superior resistance to strong acids, alkalis and solvents
- Enhances thermal shock resistance of bonded tile and pavers
- Low odor
- Excellent handling
- Damp surface tolerant

Limitations

- Not suitable for vertical wall tile applications. Consult with Armor for wall tile applications.
- Not for use beyond its chemical resistance or thermal capabilities. Consult Armor with specific questions.

INSTALLATION GUIDANCE

Reference Specifications

CES-302 Installation of chemical resistant brick flooring using the bricklayer's method of construction and direct bond technique

CES-309 Installation of corrosion-resistant tile/brick using the tile setter's method of construction

CES-311 Installation of Tufchem Tiling Systems

Installation Conditions

Thinset Novolac Adhesive - Silica is formulated for ideal handling at 70°F (21°C). Materials and substrate should be acclimated to the air temperature prior to installation, and the air temperature should be between 50°F (10°C) and 90°F (32°C) during installation and cure. For installation temperatures between 35°F (2°C) and 50°F (10°C), substitute Epoxy Cold Room Hardener for 6711 Hardener. Bricks or tiles must be clean, dry and neutral pH.

Ratio

For installation temperatures between 50°F (10°C) and 90°F (32°C), use 6711 Hardener at the following mix ratios:

1.0 resin: 0.51 hardener: 3.1 filler by weight
5 resin: 3 hardener by volume (liquids only)

For installation temperatures between 35°F (2°C) and 50°F (10°C), use Epoxy Cold Room Hardener at the following mix ratios:

1.0 resin: 0.16 hardener: 2.4 filler by weight
5 resin: 1 hardener by volume (liquids only)

Mixing

Pour measured quantity of resin into clean, dry mixing vessel. Slowly add measured quantity of hardener to resin and mix thoroughly. After liquids are mixed completely, add filler and mix until filler is thoroughly wetted and adhesive is creamy, free of lumps and trowelable.

Work Life

30-40 minutes at 70°F (21°C).

Work life is shorter at higher temperatures. A larger volume of mixed material will have a shorter work life than a smaller volume.

Cleanup

Xylene or methyl ethyl ketone (MEK)

CURE TIME

Brick or Tile Temperature	Initial Set	Heavy Traffic	Full Cure
70°F (21°C)	4-6 hours	36 hours	7 days

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PACKAGING & ESTIMATING

Product	Code	Packaging
6710 Resin Gray	19591	4 x 7.8 lb (0.8 gal) can case
6711 Hardener	19593	4 x 4.0 lb (0.5 gal) can case
Thinset Filler	19697	48 lb (21.8 kg) bag
Epoxy Cold Room Hardener	29447	2.5-gal (9.5 L) 20 lb (9.1 kg) jerrycan

A 143 lb (1.3 ft^3) unit consists of 1 case of resin, 1 case of 6711 Hardener, and 2 x 48 lb bags of filler.

When using Epoxy Cold Room Hardener, 111 lb (1 ft^3) of mixed material consists of 1 case of resin, 5 lb of Epoxy Cold Room Hardener and 75 lb of filler.

Theoretical Coverage

A 143 lb unit will cover 125 sf (11.6 m^2) at 1/8-inch (3.2 mm) or 150 sf (13.9 m^2) at 3/32-inch (2.4 mm) thickness.

111 lb of Thinset Novolac Adhesive - Silica with Epoxy Cold Room Hardener will cover 96 sf (8.9 m^2) at 1/8-inch (3.2 mm) or 120 sf (11 m^2) at 3/32-inch (2.4 mm) thickness.

Allow for loss in mixing and use.

Storage & Shelf Life

Maintain products in original packaging and sealed until ready for use. Estimated shelf life is 12 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.

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.

TYPICAL PHYSICAL PROPERTIES

Property	Typical Value
Color	Gray
Density, ASTM C138	110 lb/ft^3 (1,629 kg/m^3)
Compressive strength, ASTM C306	
24-hour	>6,000 psi (41.4 MPa)
28-day	>12,000 psi (82.8 MPa)
Tensile strength, 7-day, ASTM C307	>2,500 psi (17.2 MPa)
Flexural strength, 7-day, ASTM C453	>4,500 psi (31 MPa)
Bond to fully vitrified tile	>2,000 psi (13.8 MPa)
Adhesion to concrete	> strength of concrete
Water absorption, ASTM C413	<0.15%
Service temperature at bond line under tile	190°F (88°C)

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