Thinset Adhesive

SELECTION & SPECIFICATION DATA

Type

Epoxy tile adhesive

Description

Thinset Adhesive is a 100% solids 3 component tile and floor paver adhesive.

Uses

- Dairies, bakeries, breweries and distilleries
- Meat and poultry processing plants
- Pharmaceutical plants
- Chemical process facilities
- Bonds steel floor plate to concrete
- Adhesive for pressure-embedded Tufchem™ Tiling Systems

Features

- Exceeds ANSI A118.3 requirements
- Economical - narrowest practical thickness may be used
- Excellent resistance to moderate acids, alkalis, and solvents
- Easy-to-spread, creamy consistency
- Pre-portioned for easy on-the-job mixing
- Good resistance to thermal shock
- Good tolerance for damp surfaces
- Low odor - ideal for repairs to operating plants
- Alternative hardener available for low temperature application conditions

Limitations

- Not suitable for vertical wall tile applications. Consult with Armor for wall tile applications.
- Non-conductive. For applications requiring static disseminating or conductive tile floor systems, consult Armor to discuss the Thinset Adhesive - Carbon variant information.
- Not for use beyond its chemical resistance or thermal capabilities. Consult Armor with specific questions.

INSTALLATION GUIDANCE

Reference Specifications

CES-309 Installation of direct bond tile floors
CES-311 Installation of Tufchem Tiling Systems

Installation Conditions

Thinset Adhesive is formulated for ideal handling at 70°F (21°C). Bring bricks, tiles, adhesive components, substrate, and air to the same temperature. Do not use when air and substrate temperatures are below 50°F (10°C) or greater than 90°F (32°C). Bricks or tiles must be clean, dry and neutral pH.

Ratio

1.0 resin: 0.27 hardener: 3.43 filler by weight
3 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

60 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 MEK

CURE TIME

Brick/Tile Temperature	Initial Set	Full Cure
70°F (21°C)	4.5 hours	<7 days per ANSI A118.3

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.

Thinset Adhesive

PACKAGING, ESTIMATING, & HANDLING

Product	Code	Packaging
Thinset Resin	29433 29581	42 lb (4.5 gal) pail 471 lb (51 gal) drum
Thinset Hardener	29434 29582	11.4 lb (1.5 gal) can 382 lb (47 gal) drum
Thinset Filler	19697	48 lb (21.8 kg) bag

Theoretical Coverage

A 198 lb unit consists of 1 x 42 lb pail resin, 1 x 11.4 lb can hardener, and 3 x 48 lb bags filler and will cover 210 sf (19.5 m^2) at 3/32-1/8 inch (2.4-3.2 mm) thickness.

A 6,595 lb unit consists of 3 x 471 lb drums resin, 1 x 382 lb drum hardener, and 100 x 48 lb bags filler and will cover 7,000 sf (650 m^2) at 3/32-1/8 inch (2.4-3.2 mm) thickness.

Theoretical coverage rates listed are meant to be a guide. Factors such as the size of the notch in a notched trowel and the surface texture/roughness of the concrete can result in variation from the theoretical coverage rate.

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.

TYPICAL PHYSICAL PROPERTIES

Property	Typical Value
Color	Gray
Density, ASTM C138	110 lb/ft^3 (1629 kg/m^3)
Compressive strength, ANSI A118.3 test 5.6, 7-day	>10,000 psi (69 MPa)
Bond to Tile, ANSI A118.3 test 5.5	>2,000 psi (13.8 MPa)
Adhesion to concrete	Exceeds tensile strength of concrete
Thermal shock resistance, ANSI A118.3 test 5.8	>500 psi (3.4 MPa)
Tensile strength, ANSI A118.3 test 5.7	>2,000 psi (13.8 MPa)
Flexural strength, ASTM C453	>4,500 psi (31 MPa)

Rev 06/2026