

CE-158
11/13 Supersedes 04/11

THINSET[®] ADHESIVE

DESCRIPTION

THINSET Adhesive is a high-performance three-component epoxy adhesive used to bond vitrified tiles, acid bricks, pavers, and steel floor plates. It is specially formulated to maximize adhesion to dense vitreous and fully-vitrified industrial ceramics, enabling floor linings bonded with THINSET Adhesive to withstand thermal shock, thermal cycling, and severe impact stresses. When properly applied in a continuous, uniform layer, the low-absorption, and 100% solids VOC-free THINSET Adhesive acts as a secondary chemical barrier to the ceramic covering. **Consult Corrosion Engineering specification [CES-309](#), or [CES-311](#) (TUFCEM[®] Tiling System) or [CES-333](#) (Steel Floor Plate) for complete installation details.**

AREAS OF USE

Use THINSET Adhesive to bond vitreous or fully-vitrified tile, quarry tile, acid bricks, pavers, or steel plate flooring in areas exposed to heavy traffic or corrosive chemicals/sanitizers such as chemical, pharmaceutical, food, beverage, dairy, meat, or brewing facilities. THINSET Adhesive is compatible with both the bricklayer's (butter and set) or tile setter's (set and grout) installation methods. THINSET Adhesive is also ideally suited for use with Corrosion Engineering's TUFCEM Tiling System installation method (data sheet CE-237) in which vitrified pre-spaced tiles are pressure-embedded into a thin bed of THINSET Adhesive to minimize offset tile surfaces (lippings) and provide exceptional floor flatness.

OUTSTANDING FEATURES

- Forms strong tenacious and resilient bond.
- Economical. Narrowest practical joint depth may be used.
- Excellent corrosion resistance to moderate acids, alkalis, and solvents.
- Excellent handling properties.
- Formulated to be used with Tufchem Tiling Systems pressure embedment system.
- Pre-portioned for easy on-the-job mixing.
- Good resistance to thermal shock.
- Good tolerance for damp surfaces.
- Low odor level - ideal for repairs to operating plants.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	THINSET Adhesive
Color	Grey
Working Life / Initial Set @ 70°F (21°C)	60 minutes / 6 hours
Density	110 lb cu ft (1760 kg/m ³)
Compressive Strength (ASTM C-306)	14,200 psi (97.9 MPa)
Tensile Strength (ASTM C-307)	3,000 psi (20.7 MPa)
Flexural Strength (ASTM C-453)	4,500 psi (31.0 MPa)
Coefficient of Expansion (ASTM C-531)	28 x 10 ⁻⁶ in/in/°F (50 x 10 ⁻⁶ cm/cm/°C)
Adhesion: To brick pavers To concrete	Greater than the strength of brick Greater than the strength of concrete
Tensile Bond Strength to Fully Vitrified Tile	2500-2700 psi (17-18.5 MPa)
Maximum Service Temperature (at bond line)	190°F (88°C) Continuous / 220°F (104°C) Intermittent
Water Absorption (ASTM C-413)	0.1% max.
Mix Ratio (Resin: Hardener: Filler) by weight	1.0 : 0.27: 3.4

ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE

COMPONENT	CODE	PACKAGE SIZE	COVERAGE
THINSET Resin	19673 29433 29581	4 x 7.0 lb (0.75 gal) cans/case 42 lb (4.5 gal) pail 471 Lb (51 Gal) Drum	A 132 lb unit consists of 1 case Resin, 1 case Hardener, and 2 x 48 lb bags Filler, and will cover 140 sq ft (13m ²) @ 1/8" (3mm) thickness.
THINSET Hardener	19674 29434 29582	4 x 1.9 lb (0.25 gal) cans/case 11.4 lb (1.5 gal) can 382 lb (47 Gal) Drum	
Cold Room Hardener	29447	2.5 gal (20 lb) Jerrican	
THINSET Filler	19697	48 lbs (21.8 kg) bag	A 6595 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 5400 sq ft (501m ²) @ 1/8" (3mm) thickness.

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.



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