

CHEMFIT EPOXYTILE 8400

Thixotropic Epoxy Resin Based Tile Adhesive – For Fixing Marble, Granite, Stone & Metal Tiles

PRODUCT DESCRIPTION

ChemFit EpoxyTile 8400 is a high-performance, thixotropic epoxy resin based tile adhesive specifically formulated for fixing marble, granite, stone, and metal tiles. This advanced epoxy adhesive provides exceptional bond strength, chemical resistance, and durability for demanding tile installation applications. The thixotropic formulation prevents sagging and slumping on vertical surfaces, allowing for easy application on walls and floors. The solvent-free system ensures zero VOC emissions and minimal shrinkage during cure. This product is designed for interior and exterior tile installations where high strength, water resistance, and chemical resistance are required, including natural stone, engineered stone, metal tiles, and other non-porous substrates.

PRIMARY APPLICATIONS

ChemFit EpoxyTile 8400 is recommended for use in conditions such as:

- Fixing marble tiles on walls and floors
- Fixing granite tiles and slabs
- Fixing natural stone tiles (limestone, travertine, slate, quartzite)
- Fixing engineered stone tiles and quartz surfaces
- Fixing metal tiles (stainless steel, aluminum, bronze, copper)
- Fixing glass tiles and mosaics
- Fixing porcelain and ceramic tiles in demanding environments
- Swimming pool tile installation
- Facade and exterior wall cladding
- High traffic commercial flooring
- Industrial flooring with chemical exposure
- Wet area tiling (bathrooms, kitchens, showers)

KEY FEATURES AND BENEFITS

- **Thixotropic** – Non-sag formulation; ideal for vertical and overhead applications
- **High strength** – Exceptional bond strength to marble, granite, stone, and metal
- **Solvent free** – Zero VOC; safe for indoor use
- **Water resistant** – Suitable for wet areas, swimming pools, and exterior applications
- **Chemical resistant** – Resists oils, fuels, dilute acids, alkalis, and cleaning agents
- **High temperature resistant** – Suitable for heated floors and outdoor exposure
- **Flexible** – Accommodates minor substrate movement and thermal expansion

- **Gap filling** – Can be applied in thicker layers for uneven substrates
- **Good coverage** – Approximately 6 kg/m² per 3 mm thickness
- **Easy to mix** – Three component system with simple mix ratio
- **Long pot life** – Adequate working time for large installations

PHYSICAL AND CHEMICAL PROPERTIES

Property	Specification
Appearance	Three component: Resin (paste), Hardener (liquid/paste), Filler (powder)
Color	Mixed: White or Light Gray (depending on filler)
Form	Thixotropic paste (non-sag)
Basis	Epoxy resin with selected filler
Solvent Content	Nil (solvent free)
Density (mixed)	Approximately 1,800 – 2,000 kg/m ³
Consistency	Thixotropic (non-sag on vertical surfaces)
Pot Life (at 25°C)	30 – 60 minutes
Initial Cure (at 25°C)	12 – 24 hours
Full Cure (at 25°C)	7 days
Application Temperature	+10°C to +35°C
Service Temperature	-20°C to +80°C

MECHANICAL PROPERTIES

Property	Value (typical at 7 days / 25°C)
Tensile Adhesion Strength	> 10 MPa (1,450 psi) to stone
Shear Strength	> 12 MPa (1,740 psi)
Compressive Strength	50 – 70 MPa (7,250 – 10,150 psi)
Flexural Strength	20 – 35 MPa (2,900 – 5,100 psi)
Water Absorption	< 0.1%

NOTE: Mechanical properties depend on curing temperature, mixing accuracy, and proper substrate preparation.

PACKAGING AND STORAGE

Packaging:

- 34 kg unit (pre-weighed components – resin, hardener, filler)

Storage:

- Store resin and hardener in original sealed containers at +10°C to +30°C
- Store filler in dry conditions, protected from moisture
- Protect from direct sunlight, extreme heat, and freezing
- Keep containers tightly closed when not in use

Shelf life: 24 months from date of manufacture when stored properly

DOSAGE AND COVERAGE RATES

The coverage of **ChemFit EpoxyTile 8400** is approximately 6 kg per square meter per 3 mm thickness.

Thickness	Coverage per 34 kg unit
2 mm	Approximately 2.8 m ²
3 mm	Approximately 5.7 m ²
4 mm	Approximately 4.3 m ²
5 mm	Approximately 3.4 m ²
6 mm	Approximately 2.8 m ²

Typical coverage by tile size and notch trowel:

Tile Type	Notch Trowel Size	Approximate Coverage per 34 kg
Small mosaics (2-5 cm)	3 mm x 3 mm	6 – 8 m ²
Standard tiles (10-30 cm)	4 mm x 4 mm	5 – 7 m ²
Large tiles (30-60 cm)	6 mm x 6 mm	4 – 5 m ²
Large slabs (> 60 cm)	8 mm x 8 mm	3 – 4 m ²

NOTE: Coverage rates are approximate and vary based on substrate flatness, tile back profile, notch trowel size, and application technique. For uneven substrates, coverage will be lower.

APPLICATION GUIDELINES

Surface Preparation:

- Substrate must be clean, dry, sound, and free from dust, oil, grease, laitance, curing compounds, loose particles, and old adhesive residues
- Concrete/cementitious substrates: mechanically abrade (grinding, shot blasting) to achieve open texture
- Apply suitable primer if required (consult ChemFit technical support)
- For metal substrates: remove rust, scale, and oil by sandblasting or degreasing
- Ensure substrate is level and flat; fill major imperfections before tiling
- Substrate must be dry before application

Mixing:

- Pre-mix resin component individually before combining
- Combine all three components according to specified mix ratio on product label
- Mix with low-speed drill and mixing paddle (400-600 rpm) for 3-5 minutes until uniform, lump-free, thixotropic paste consistency
- Scrape sides and bottom during mixing
- Do not add solvents or diluents
- Use entire batch within pot life (30-60 minutes at 25°C)

Application:

- Apply mixed adhesive to substrate using appropriate notch trowel
- For large tiles (over 30 cm), apply adhesive to both substrate and tile back (buttering)
- Press tile firmly into place with twisting motion to ensure full contact
- For vertical applications, thixotropic formulation prevents sagging
- Ensure full coverage – no voids or gaps under tiles
- Remove excess adhesive from tile surface and joints before curing
- Clean tools and tile surface immediately before adhesive cures

Curing and Grouting:

- Allow adhesive to cure for minimum 24 hours before grouting
- Full cure achieved at 7 days
- For epoxy grout, use ChemFit EpoxyGrout range (consult product data sheet)
- For cementitious grout, ensure grout is suitable for epoxy adhesive systems
- Protect from water and moisture during initial 24 hour cure
- Lower temperatures slow curing; higher temperatures accelerate curing
- Do not apply below +10°C or when temperatures expected to drop below +10°C within 24 hours

HEALTH AND SAFETY

Epoxy resins and hardeners may cause skin and eye sensitization and irritation. If eye contact occurs, rinse with water for 15 minutes and seek medical attention. For skin contact, wash immediately with soap and water; remove contaminated clothing. If swallowed, seek medical attention immediately – do not induce vomiting. Use gloves (nitrile), safety glasses, and protective clothing during handling. Ensure adequate ventilation – use respiratory protection if ventilation is poor. Refer to the Safety Data Sheet for detailed information.

CLEANG OF TOOLS

Clean all mixing equipment, tools, and spillages with solvent (acetone, xylene, or epoxy thinner) immediately after use before material cures. Dried epoxy requires mechanical removal. Dispose of cleaning materials in accordance with local regulations.

APPROVALS AND STANDARDS

ChemFit EpoxyTile 8400 conforms to the following standards:

- **EN 12004** – Standard for Adhesives for Tiles (Class R2T – Reactive, High Strength, Thixotropic)
- **EN 13888** – Standard for Grouts for Tiles
- **ASTM C881 / C881M** – Standard Specification for Epoxy-Resin-Bonding Systems for Concrete
- **100% solids, solvent-free formulation** – Zero VOC emissions
- Suitable for fixing marble, granite, stone, and metal tiles

LEGAL NOTES

All technical data provided in this Product Data Sheet is based on laboratory testing under controlled conditions. Actual field performance may vary due to differences in substrates, application methods, site conditions, and environmental factors. ChemFit makes no warranty of merchantability or fitness for a particular purpose. Users shall conduct their own trials to validate product suitability for the intended application. ChemFit reserves the right to modify product specifications without prior notice. For the most current documentation, request the latest Product Data Sheet and Safety Data Sheet from ChemFit.

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