



# VERSATILE 52 PREMIUM-GRADE, POLYMER-MODIFIED MORTAR

## DESCRIPTION

Flextile 52 is a premium-grade, superior high-performance, one-component, polymer-modified thin-set mortar. Unique, high polymer modification provides the superior bonding characteristics and exceptional flexibility required for installation of tile and stone over difficult to bond surfaces such as exterior grade plywood, vinyl and laminates.

## BASIC USES

- Installation of porcelain, ceramic, mosaic, quarry and paver tile.
- Installation of natural stone, marble, granite, slate and precast terrazzo tile.

## RECOMMENDED SURFACES

- Interior or exterior floor and wall installations.
  - Vertical or horizontal surfaces of concrete, masonry, terrazzo, cement backer boards.
  - Installation over cement mortars and leveling compounds.
  - Existing surfaces of properly prepared tile, stone or cementitious terrazzo.
  - Exterior grade plywood or gypsum board, in interior dry areas only.
  - Existing surfaces of properly prepared non-cushion sheet vinyl flooring, VCT or cutback adhesive residue.
- \*For commercial exterior wall installations use Flextile 51 / 44 or Flextile 58XT systems.

## FEATURES

- For interior or exterior use.
- Excellent adhesion to porcelain tile and to difficult to bond substrates.
- Excellent flexibility and bond strength.
- Excellent workability.
- Easy to use - just mix with water and apply.
- Water resistant when cured.
- Rated as a light performance commercial and residential mortar by ASTM C627-70 on plywood substrates
- Rated as suitable for extra heavy service by ASTM C627-70 on concrete substrates

## LIMITATIONS

- Do not use over particleboard, Masonite, chipboard, OSB or similar unstable materials.
- Do not use over cushioned resilient flooring, rubber, plastic, paint, asphalt, or plywood surfaces in wet areas.
- Do not use over single layer plywood floors. Use only on surfaces, which are maintained at a temperature above 10°C (50°F) and below 35°C (100°F) during application and for at least 72 hours after application.
- On exterior applications, protect from rain until thoroughly dried and protect from freezing for at least 14 days after installation.
- When installing light-colored stones and translucent marble use Flextile 52 White.

## LEED Points Contribution

MR Credit 5, Regional Materials\*  
IEQ Credit 4.1, Low-Emitting  
Materials – Adhesives & Sealants  
IEQ Credit 4.3, Low-Emitting  
Materials – Flooring Systems  
*\*May be eligible*

**LEED Points**  
Up to 2 points

1 point

1 point

## TECHNICAL DATA

Exceeds ANSI A118.4 and A118.11 requirements

### Typical Physical Properties

Pot Life	2 hours
Open Time	20 minutes
Initial Cure	24-48 hours
Final Cure	28 days

### Shear Strength ( ANSI A118.4)

Non-Vitreous Tile	4.2 MPa (600 psi)
Vitreous Tile	2.6 MPa (380 psi)
Porcelain Tile	2.1 MPa (300 psi)
Tile to Plywood	1.8 MPa (260 psi) (wood failure)

Linear Shrinkage	< 0.25 %
Specific Gravity (dry)	1.43
Specific Gravity (wet)	1.60
pH (paste)	approx. 12
Cleanability :	with water before material dries
Shelf Life:	1 year from production date when stored in dry, heated conditions

### Approx. coverage per 22.7 kg (50 lb) bag:

5mm (3/16") notched trowel	- 10.0 M <sup>2</sup> (105 ft <sup>2</sup> )
6mm (1/4") notched trowel	- 7.1 M <sup>2</sup> (77 ft <sup>2</sup> )
10mm (3/8") notched trowel	- 5.5 M <sup>2</sup> (60 ft <sup>2</sup> )

*\* Coverages given are for estimating purposes only. Actual coverages may vary depending on job-site conditions and installation techniques used.*

For job specific installation systems, recommendations, project warranty information, or for assistance with installation specifications, please contact Flextile's technical department.

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## INSTALLATION

### PREPARATORY WORK

Surfaces must be sound, even, dry and free of grease, oil, dirt, paint, curing compounds or sealers, or other foreign matter. Surfaces must be true to a tolerance of 3 mm (1/8") in 2.4 meters (8 ft.) for walls and 6mm (1/4") in 3 meters (10 ft.) for floors. Concrete surfaces should have a wood float or steel trowel with broom finish. Roughen smooth concrete surfaces. Plywood floors should be designed for maximum deflection of 1/360 of span. This normally requires an overlay of 16 mm (5/8") exterior grade plywood over 25 mm (1") nominal boards or 16 mm (5/8") plywood when on joists 40 cm (16") O.C. Fasten overlay with screw type nails and glue where possible. Leave a 3mm-6mm (1/8"-1/4") gap between sheets of overlay and next to all vertical surfaces to allow for expansion. Refer to current editions of TTMAC 09300 Tile Installation Manual, or TCA Handbook For Ceramic Tile Installation for information regarding placement of expansion or control joints, or for further substrate acceptability information.

### APPLICATION

Mix with approximately 5 liters (1.3 US gallons) of water per 22.7 kg (50 lb) bag. Avoid using high-speed mixers. Allow mixed mortar to slake for at least 10 minutes, then re-mix without adding further water. Spread a thin layer of mixed mortar with flat side of trowel to wet out the substrate; then reapply sufficient material with a suitable notched trowel that will leave enough mortar to give at least 95% coverage to the backs of tile. Back buttering of tile is recommended for porcelain tile, large format or high lugged tile, ungauged slate, stone, etc. and for all exterior applications. Comb that area which can be covered with tile before skinning occurs. Mortar should be troweled with notches running in straight lines so as to achieve maximum coverage. Press or beat in tile to achieve a finished thickness of mortar of at least 3mm (1/8"). Do not adjust tiles after they have been set for more than 25 minutes.

## CURING AND GROUTING

Protect from all traffic and delay grouting until cured at least 24 hours, and preferably 48 hours. On exterior or cold weather applications, or when an impervious tile is installed over an impervious membrane, extended curing is recommended to ensure that mortar is sufficiently cured prior to grouting. Do not allow heavy traffic for at least 5 days following installation, and protect installation with 13 mm (1/2") plywood sheets prior to allowing construction equipment such as scissor lifts, etc. for a minimum of 7 days. Grout using Flextile Polymer Modified Grout or Flextile FlexEpoxy100 100% Solids Epoxy Grout, or Flextile ColourMax Pre-Mixed Urethane Grout.

## CAUTION

Freshly mixed cement, mortar, concrete or grout may cause skin injury. Avoid extended contact with skin where possible and wash exposed skin areas promptly with water. If any cement or cement mixtures get into the eye, rinse immediately and repeatedly with water and get prompt medical attention. Keep out of reach of children.

## SAFETY

Refer to Flextile Material Safety Data Sheet for detailed health and safety information.

## AVAILABILITY AND COSTS

Versatile 52 High Performance P.M. Thin-Set Mortar is available from Flextile Ltd. and its distributors in 22.7 kg (50 lb), 11.3 kg (25 lb), and 5 kg (11 lb) bags.

Cost: Data supplied upon request.

## WARRANTY

Flextile warrants that this product is of merchantable quality and is suitable for the purpose for which it is intended. Flextile's liability under this warranty shall be limited to replacement of its product found to be defective or, at its option, a refund of the purchase price.

## MAINTENANCE

No maintenance is required except where damages result from unforeseen circumstances. Repair procedures shall be directed by Flextile or its distributors.

## TECHNICAL SERVICES

Flextile maintains a well-equipped laboratory able to test its products in conjunction with the products with which they are used. Technical assistance for use of Flextile products is available upon request.

## RELATED REFERENCES

Current editions of: Ceramic Tile Installation Manual (09300) from the TTMAC & TCA Ceramic Tile Installation Handbook.

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