

## MagniFlex™ Lite 8900

### Lightweight, Polymer-Modified Large-and-Heavy Tile Mortar

ANSI: Exceeds ANSI A118.4HET and ANSI A118.11 requirements  
ISO 13007: Classification C1TES1  
SCS Green Squared Certified per ANSI A138.1

#### Product Description

MagniFlex Lite 8900 is a contractor grade, lightweight, single-component thin-set mortar that can also be used for large-and-heavy-tile and nonsag applications. This polymer-modified mortar is formulated for easy trowel properties with excellent adhesion to the substrate and tile. MagniFlex Lite 8900's unique lightweight mortar technology provides twice the coverage of a standard thin-set mortar per pound/kg and contains more than 20% recycled content.

#### Features

- Polymer-enriched for high performance
- Nonsag and nonslump formula for large and heavy tile/stone
- One 11.3-kg (25-lb.) bag of MagniFlex Lite 8900 provides the same coverage as a 22.7-kg (50-lb.) bag of a standard polymer-modified mortar
- Smooth and creamy consistency for easy application
- For bond coats up to 12 mm (1/2") in embedded thickness

#### Uses

- Most interior/exterior residential installations on floors and walls
- Most interior/exterior commercial installations on floors
- Most interior commercial installations on walls
- Installation of ceramic and porcelain tile, quarry tile, pavers, Saltillo tile, large-format tile and most types of marble, granite and natural stone
- Install only at temperatures between 4°C and 35°C (40°F and 95°F).
- Do not use for moisture-sensitive stone (green marble; some limestone and granite), agglomerate tiles, cultured marble or resin-backed tiles.

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#### Technical Quick Reference

##### Recommended Trowel Sizes and Approximate Coverages\* Based on 11.3-kg (25-lb.) bag

6 x 6 x 6 mm (1/4" x 1/4" x 1/4")		6.97 to 8.36 m <sup>2</sup> (75 to 90 sq. ft.)
6 x 10 x 6 mm (1/4" x 3/8" x 1/4")		5.11 to 6.04 m <sup>2</sup> (55 to 65 sq. ft.)
12 x 12 x 12 mm (1/2" x 1/2" x 1/2")		3.53 to 4.18 m <sup>2</sup> (38 to 45 sq. ft.)
19 x 14 x 10 mm (3/4" x 9/16" x 3/8")		2.32 to 2.79 m <sup>2</sup> (25 to 30 sq. ft.)

\* Coverages are for estimating purposes only. Actual coverage may vary according to substrate conditions, trowel used and setting practices. To ensure adequate contact, proper trowel selection is mandatory (see "Application").

#### Product Characteristics

(at 23°C [73°F] and 50% relative humidity)

Pot life**	Less than 2 hours
Open Time**	30 minutes
Adjustability	Up to 30 minutes
Initial set (before grouting)**	24 to 48 hours
Final set (before light traffic)	24 to 48 hours after grouting
Final set (before heavy traffic)	7 days
VOCs (Rule #1168 of California's SCAQMD)	0 g per L
Application temperature range	4°C to 35°C (40°F to 95°F)
Embedded thickness range	2.5 to 12 mm (3/32" to 1/2")

\*\* Actual open time, pot life and time before grouting will vary based on jobsite conditions

#### Shear strength per ANSI A118.4 tests

(at 28 days)

Impervious ceramic mosaics	1.90 to 2.42 MPa (275 to 350 psi)
Quarry tile to quarry tile	2.42 to 2.93 MPa (350 to 425 psi)
Quarry tile to plywood	1.03 to 1.38 MPa (150 to 200 psi)

(at 7 days)

Glazed wall tile	2.28 to 3.11 MPa (330 to 450 psi)
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## Uses (continued)

- Do not use over dimensionally unstable substrates such as presswood, hardwood flooring, oriented strand board (OSB), particleboard, chipboard, Masonite, Lauan, gypsum floor-patching compounds or substrates containing asbestos, or metal.
- To use directly over gypsum-based patching or leveling substrates, apply a suitable sealer/primer before use.
- Installations of tile over nonporous surfaces, such as waterproofing membranes and existing tile, may require extended setting/curing times. Dimensionally weak stone (limestone and travertine) is limited to thin-set applications only.
- Do not use for installations subject to prolonged water immersion (e.g., pools, fountains, showers, hot tubs and steam rooms).
- *MagniFlex Lite 8900* is not recommended for areas subject to severe freeze/thaw conditions. For best performance, use a liquid latex additive mortar system.
- Do not use on exterior commercial-building facades such as shopping malls, office building or high-rise residential units.

## Substrate Requirements

All surfaces must be structurally sound, level and clean of all substances that can impair the adhesive's bond to the substrate. These substances include, but are not limited to, concrete sealers and curing agents, existing adhesives, dirt, wax, tar, paint and loose toppings. If the surface contains these substances, they must be mechanically removed. The use of solvents, adhesive removers and acid etching is not recommended.

## Approved Substrates Properly Prepared

(see "Substrate Requirements For Tile" document for preparation details):

- Fully cured concrete (at least 28 days old)
- Masonry cement block, brick, cement mortar beds and leveling coats
- Cement backer units (CBUs) – see manufacturer's installation guidelines
- Foam backer board
- Gypsum plaster and gypsum wallboard (on properly primed interior walls only)

- Plywood underlayments must be a Group 1 exterior-grade plywood CC-plugged or better, conforming to APA classification and U.S. Product Standard PS 1-95 or a "SELECT" or (SEL-TF) CANPLY classified exterior-grade plywood conforming to CSA-0121 standard for Douglas fir for direct-bond applications (interior, residential and light commercial floors and countertops in dry conditions only).
- Vinyl composition tile (VCT) and cutback residue (interior only)
- Interior installations in dry conditions only over properly prepared and well-bonded unglazed tile, ceramic and porcelain tile, cement terrazzo, quarry tile and pavers
- Waterproofing, crack-isolation, sound-reduction and uncoupling membranes (limited to thin-set installations only when using weak stone)

Note: Consult Chembond's Technical Services Department (1-888-243-6263) for installation recommendations regarding substrates and conditions not listed.

## Mixing (for an 11.3-kg [25-lb.] bag)

Before product use, take appropriate safety precautions. Refer to the Safety Data Sheet (SDS) for details.

For thin-set applications:

1. Into a clean mixing container, pour about 5.20 L (5.5 U.S. qts.) of clean potable water.
2. Gradually add 11.3 kg (25 lbs.) of *MagniFlex Lite 8900* powder while slowly mixing for at least 1 minute. Adjust the consistency with water, adding up to an additional 0.95 L (1 U.S. qt.) of water as needed. Do not overwater. Mix again for 2 minutes.
3. Wash tools and hands with water, while the mortar is fresh.

For large-and-heavy-tile and nonsag applications for walls and floors:

1. Into a clean mixing container, pour about 4.73 L (5 U.S. qts.) of clean potable water.
2. Gradually add 11.3 kg (25 lbs.) of *MagniFlex Lite 8900* powder while slowly mixing for at least 1 minute. Adjust the consistency with water, adding up to an additional 0.95 L (1 U.S. qt.) of water as needed. Do not overwater. Mix again for 2 minutes.
3. Mix thoroughly until the mixture becomes a smooth, homogeneous, lump-free paste. Avoid prolonged mixing.
4. Let the mixture stand ("slake") for 5 minutes.

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5. Remix for 1 minute.
6. If the mixture becomes thick or stiff, remix by hand or machine, but do not add more water.
7. Wash tools and hands with water, while the mortar is fresh.

## Application

Read all installation instructions thoroughly before installation.

1. Choose a typical notched trowel (see chart) with sufficient depth to achieve more than 80% mortar contact of *MagniFlex Lite 8900* to both the tile and substrate for all interior applications, and more than 95% for exterior installations and wet applications. It may be necessary to back-butter the tile to meet these requirements. (Refer to ANSI A108.5 specifications and TCNA or TTMAC guidelines.)
2. Apply a thin coat of *MagniFlex Lite 8900* onto the substrate with the trowel's flat side.
3. Apply a second coat and use trowel's notched side to comb *MagniFlex Lite 8900*, combing it in a single direction parallel to the tile's shortest dimension for an even-setting bed.
4. Do not spread more mortar than can be covered with tile before the product skins over. Open time can vary with jobsite conditions.
5. Before *MagniFlex Lite 8900* surface "skins over" on substrate, place tiles firmly into position. Push the tiles back and forth in a direction perpendicular to trowel lines, to collapse mortar ridges to ensure good contact with *MagniFlex Lite 8900*. Remove any skinned-over *MagniFlex Lite 8900* and replace with fresh material.
6. Follow immediately with thorough beat-in to flatten ridges or notches into a continuous bed. Allow at least 25% of tile thickness to be embedded into *MagniFlex Lite 8900*.
7. Make alignments and adjustments within 20 minutes of completing the beat-in procedure.
8. Clean the tile surface with a damp towel.
9. Do not disturb, grout or walk on tiles for at least 24 hours after installation.
10. Wash tools and hands with water, while the mortar is fresh.

## Expansion and Control Joints

1. Provide for expansion and control joints within the tile work where specified or where necessary. Refer to the TTMAC handbook.
2. Do not cover any expansion joints with *MagniFlex Lite 8900*.
3. Cut tiles on both sides along the edges of expansion joints or control joints.

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## ANSI Specifications

ANSI A118.4H Mortar for large and heavy tile (Robinson Floor Test)	Pass
ANSI A118.4E Extended open time (at 30 minutes)	Pass
ANSI A118.4T Sag on vertical surfaces (at 20 minutes)	Pass

## ISO 13007 Classifications

Classification Code	Classification Requirement	Test Characteristic
C1 (cementitious, standard adhesive)	≥ 0.5 MPa (72.5 psi) after standard aging, heat aging, water immersion and freeze/thaw cycles	Using porcelain tile
T (vertical slip resistance)	≤ 0.5 mm (0.019")	Using porcelain tile
E (extended open time)	≥ 0.5 MPa (72.5 psi) after 30 minutes	Using glazed ceramic wall tile
S1 (normal deformation of mortar)	≥ 2.5 mm (0.1")	Using porcelain tile

Packaging	Bag: 11.3 kg (25 lbs)
Color	White
Shelf life	12 months in original unopened packaging, when stored at 23°C (73°F) and 50% relative humidity
Cleanup	With clean water while fresh
Health and safety	Consult the Safety Data Sheet (SDS) for safe-handling instructions.

**MagniFlex Lite**  
**8900**

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## Expansion and Control Joints (continued)

4. Protect tilework with metal strips along both edges of structural building expansion joints.
5. Install specified compressible bead and sealant in all expansion and control joints.

## Grouting

Allow tiles to reach initial set (about 24 to 48 hours after installation) before walking on or grouting (with appropriate grout). At cooler floor temperatures, a longer set time may be required before grouting.

## Protection

1. Provide for dry, heated storage on site and deliver materials at least 24 hours before tilework begins.
2. Floors: Keep from general traffic for a minimum of 72 hours, and from heavy traffic for at least 7 days after installation. Plywood or stepping boards may be used after 24 hours when occasional stepping on the floor is unavoidable.
3. Walls: Protect from impact, vibration and heavy hammering on adjacent and opposite walls for at least 14 days after installation.
4. Protect the installation from rain for 72 hours, and from freezing for 21 days.

### LEGAL NOTICE

The contents of this Product Data Sheet ("PDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the PDS in effect at the time of the Chembond product installation. For the most up-to-date PDS and warranty information, visit our Website at [www.chembond.com](http://www.chembond.com). **ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS PDS SHALL VOID ALL RELATED CHEMBOND WARRANTIES.**

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