

KER 107 GRAY / KER 108 WHITE

ULTRA/FLEX RS



POLYMER-MODIFIED, RAPID SETTING
ONE-STEP MORTAR

MEETS OR EXCEEDS ANSI A118.4 STRENGTH REQUIREMENTS



DESCRIPTION

A single component, ultra high performance, polymer-modified, rapid-setting mortar for ceramic tile, porcelain, marble, granite, and slate installations.

USES

1. For interior installations.
2. For floor and wall installations.
3. For installing vitreous, semi-vitreous, and non-vitreous ceramic tile, including impervious ceramic mosaics.
4. For rapid retiling of floors and walls that have to be ready for use within a very short time such as supermarkets, factories, hospitals, airports, shopping malls, etc.
5. For installations over VAT, VCT, cutback adhesive residue, non-cushioned back sheet vinyl and plastic laminate countertops.

LIMITATIONS

1. Do not apply over presswood, particle board, chipboard, masonite, Lauan, gypsum floor patching compounds, metal or similar dimensionally unstable substrates.
2. Do not use for exterior installations. Use only KERALASTIC or GRANI/RAPID Systems (see data sheets for details).
3. Do not use for installations subject to prolonged water immersion. Use KERACRETE, KERALASTIC or GRANI/RAPID Systems (see data sheets for details).
4. Do not use for setting green marble or green granite and their agglomerates or Rosso Levanto and Nero Marquina marble, use KERAPOXY®, KERAPOXY SETTING MORTAR (KER 410), or PLANICRETE®W. When installing light colored stones and translucent marble typically a white mortar is recommended. We highly recommend using WHITE GRANI/RAPID or WHITE ULTRA/FLEX RS (see respective data sheets for details).
5. Do not apply at temperatures below 40°F (4°C) or above 95°F (35°C).

RECOMMENDED SUBSTRATES

- Fully cured concrete (28 days old)
- Concrete and masonry block
- Gypsum drywall panels (in dry areas only)
- Cementitious backer units
- Properly prepared old unglazed ceramic tiles (interior use only)
- Properly prepared old cement terrazzo
- Properly prepared Group I exterior grade plywood (interior residential floors and countertops in dry areas only)

- Properly prepared VAT, VCT, cutback adhesive residue, plastic laminate countertops and non-cushioned sheet vinyl

NOTE

Consult MAPEI's Technical Department for recommendations concerning installation over other substrates and if special conditions exist.

SETTING INSTRUCTIONS

1. SURFACE PREPARATION

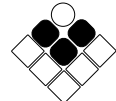
SEE "SURFACE PREPARATION" SHEET [A]

2. MIXING

- 2.1 In a clean mixing container:
 - 2.1.1 **25 lbs. (11,3 kg) bag:** Pour in approximately 2 1/2 - 3 US qt. (2,3 - 2,8 L) of cold water and gradually add one 25 lbs. (11,3 kg) bag of ULTRA/FLEX RS powder while slowly mixing.
 - 2.1.2 **50 lbs. (22,7 kg) bag:** Pour in approximately 5 - 6 US qt. (4,7 - 5,7 L) of cold water and gradually add one 50 lbs. (22,7 kg) bag of ULTRA/FLEX RS powder while slowly mixing.
- 2.2 Use a low speed mixer (approximately 300 RPM).
- 2.3 Mix thoroughly to a homogeneous and smooth consistency.
- 2.4 Do not slake. Spread immediately.
- 2.5 Do not mix more material than can be installed in a 30 minute period. The set time depends on temperature and humidity.
- 2.6 Wash tools and hands with soap and water immediately after mixing.

3. APPLICATION

- 3.1 Use the recommended notched trowel (see chart) with sufficient depth to achieve an 80% minimum mortar contact to the back of the tiles for all interior applications. For exterior installations, commercial floor and shower applications, and when installing marble, granite and agglomerate tile floors, achieve coverage in accordance with applicable ANSI specifications and TCA guidelines.
- 3.2 Using the flat edge of the trowel, spread a thin, pressure-applied coat to the substrate. Then apply additional material and comb the surface using the notched side of the trowel to achieve an even setting bed. Do not spread more material than can be covered with tile within 15 to 20 minutes maximum [approx. 20 sq. ft. (2 m²)].
Note: When back-buttering is required, a helper should proceed with this operation simultaneously while the mechanic is spreading the ULTRA/FLEX RS mortar on the substrate.
- 3.3 Do not soak tiles before installation.
- 3.4 Place tiles firmly into position in a slight twisting motion before skinning occurs. Should skinning occur, scrape



Ceramic Tile Distributors Association

CTDA



| | | | | |
|---------------------------------------|--------------------------|-------------------|-------------------|-------------------|
| Pot life 75°F (23°C) | 30 minutes | | | |
| Open time at 72°F (22°C) | Approximately 20 minutes | | | |
| Initial set at 72°F (22°C) | 1 hour 10 minutes | | | |
| Final set | 1 hour 30 minutes | | | |
| Adjustability time | 30 minutes | | | |
| Ready for grout | 2 1/2 hours | | | |
| Ready for light foot traffic | 6 hours | | | |
| Shear strength per ANSI A118.4 tests: | <u>4 hours</u> | <u>1 day</u> | <u>7 days</u> | <u>28 days</u> |
| Ceramic mosaic | 221 psi (1,52 MPa) | 375 psi (2,6 MPa) | 520 psi (3,6 MPa) | 675 psi (4,7 MPa) |
| Quarry tile to plywood | n/a | n/a | 222 psi (1,5 MPa) | 327 psi (2,3 MPa) |
| Quarry tile to quarry tile | 300 psi (2,07 MPa) | 425 psi (2,9 MPa) | 545 psi (3,7 MPa) | 550 psi (3,8 MPa) |
| Cleanability | With water while fresh | | | |

PACKAGING

Bag: 25 lbs. (11,3 kg)
 Bag: 50 lbs. (22,7 kg)

COLOR

Gray
 Gray and white

SHELF LIFE

6 months when stored in a dry location, sealed original containers at room temperature.

APPROXIMATE COVERAGES

(single application)

| Square notched trowels | 25 lbs. (11,3 kg) | 50 lbs. (22,7 kg) |
|------------------------|-----------------------------|-----------------------------|
| 1/4" x 1/4" x 1/4" | 35 - 45 sq. ft. | 70 - 90 sq. ft. |
| (6 mm x 6 mm x 6 mm) | (3,3 - 4,2 m ²) | (6,5 - 8,4 m ²) |
| 1/4" x 3/8" x 1/4" | 25 - 32 sq. ft. | 50 - 65 sq. ft. |
| (6 mm x 10 mm x 6 mm) | (2,3 - 3,1 m ²) | (4,6 - 6 m ²) |

NOTE

Coverages shown are approximate and are given for estimating purposes only. Actual job site coverages may vary according to substrate conditions, type of trowel used and setting practices.

HEALTH AND SAFETY

Consult the material safety data sheet for more information.

- off the skinned mortar and replace it with fresh material.
- 3.5 Follow immediately with proper and thorough beat-in procedure to flatten the ridges or notches into a continuous setting bed, allowing at least 25% of the thickness of the tiles to be embedded into the mortar. Check pieces periodically to ensure that there is sufficient mortar contact with the reverse side of the tiles.
 - 3.6 Make all alignments and adjustments immediately after beat-in (within 20 - 30 minutes).
 - 3.7 Clean joints and smudges from the tile face with a damp towel before material hardens. Leave at least 2/3 of the joint depth open for grouting.
 - 3.8 Wash tools and hands with water while material is still fresh.

4. EXPANSION AND CONTROL JOINTS

- 4.1 Provide for expansion and control joints where specified.
- 4.2 Do not cover or bridge any expansion joints with mortar or surfacing material.
- 4.3 Cut tiles on both sides along the edges of expansion joints.
- 4.4 Protect tilework with metal strips along both edges of structural building expansion joints.

5. GROUTING

Do not disturb, grout, or walk over tiles for at least 2 1/2 hours after installation. It should be noted that when installing over cooler floor temperatures, a longer curing time may be required before grouting. Grout joints with the appropriate MAPEI grout.

6. PROTECTION

General

- 6.1 Provide for dry, heated storage on site and deliver materials at least 24 hours before tilework begins.
- 6.2 Protect finished tilework against weather, freezing, and complete water immersion for at least 7 days after completion of the work.
- 6.3 Floors: Protect floors from foot traffic and general traffic for at least 6 hours after installation. Prohibit heavy traffic on floors for at least 24 hours after installation.
- 6.4 Walls: Protect walls from impact, vibrations and heavy hammering on adjacent and opposite walls for at least 72 hours after installation.
- 6.5 Since temperature and humidity (during and after installation of tile) affect the final curing time of all cement-based and epoxy materials, allow for extended periods of cure and protection when temperatures drop below 60°F (15°C) and/or when the relative humidity is higher than 70%.

NOTICE

We shall not be liable for incidental and consequential damages, as defined under the uniform commercial code, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instruction or for other than the intended use. Before using, user shall determine the suitability of the product for its intended use and user alone assumes all risks and liability whatsoever in connection therewith. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was, or reasonably should have been discovered.

MAPEI

NORTH AMERICAN HEADQUARTERS

1501 Wall Street
 Garland, TX 75041-4046
 Phone: (972) 271-9500
 Fax: (972) 271-9464

CUSTOMER SERVICE

1-800-42-MAPEI
 www.mapei.com

TECHNICAL SERVICE

1-800-992-6273
 (U.S. and Puerto Rico)
 1-800-361-9309 (Canada)

UNITED STATES

Arizona

401 South Smith Road
 Tempe, AZ 85281-2925
 Phone: (480) 968-7722
 Fax: (480) 966-9659

California

1900 East Wright Circle
 Anaheim, CA 92806-6028
 Phone: (714) 385-0155
 Fax: (714) 978-0614

Florida

1851 N.W. 22nd Street
 Ft. Lauderdale, FL 33311-2940
 Phone: (954) 485-8575
 Fax: (954) 485-9081

Illinois

530 Industrial Drive
 West Chicago, IL 60185-1828
 Phone: (630) 293-5800
 Fax: (630) 293-5079

New Jersey

P.O. Box 105, Off Whitehead Ave.
 South River, NJ 08882
 Phone: (732) 254-8001
 Fax: (732) 254-9103

Virginia

300 Nelms Circle
 Fredericksburg, VA 22406
 Phone: (540) 310-0111
 Fax: (540) 310-4887

CANADA

Québec

2900 Francis-Hughes Avenue
 Laval, QC H7L 3J5
 Phone: (450) 662-1212
 Fax: (450) 662-0444

British Columbia

831 Cliveden Avenue
 New Westminster, BC V3M 5R6
 Phone: (604) 521-1843
 Fax: (604) 521-6291

Ontario

351 Hanlan Road, Units 7 to 11
 Vaughan, ON L4L 3T1
 Phone: (905) 856-7774
 Fax: (905) 856-7874

PUERTO RICO

Road 2 km 26.2 BO. Espinosa
 Dorado, Puerto Rico 00646
 Phone: (787) 270-4162
 Fax: (787) 270-4135

VENEZUELA

1^{ra} Ave. entre 4^a y 5^a transversal
 No. 1-25 Urbanización Montecristo
 1071 Caracas, Venezuela
 Phone: (58-2) 237-1669
 Fax: (58-2) 237-3284

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