

# KER 184 GRAY / KER 185 WHITE

## ULTRA/FLEX 3



POLYMER-MODIFIED ONE-STEP MORTAR  
MEETS OR EXCEEDS ANSI A118.4 REQUIREMENTS



### DESCRIPTION

A single component, ultra-high performance polymer modified dry-set mortar to be mixed with water only. ULTRA/FLEX 3 has an extremely high content of dry polymer. This results in excellent bond capacity which exceeds AINSI 118.4 requirements.

### USES

1. For interior vertical and horizontal tile installation of dimension stone, ceramic, porcelain and quarry tile installation over most traditional, well prepared, non-deflecting substrates such as plywood, cured concrete, masonry and cement backer units.
2. For renovation in interior installations over properly prepared and well bonded unglazed tile, cement terrazzo, VCT, VAT, cutback adhesive residue, plastic laminant countertops and non-cushioned back sheet vinyl.

### 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/KERABOND or GRANI/RAPID (see data sheets for details).
3. Do not use for installations subject to prolonged water exposure or immersion. Use KERACRETE, GRANI/RAPID or KERALASTIC/KERABOND (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, WHITE ULTRA/FLEX RS or WHITE ULTRA/FLEX 3 (see respective data sheets for details).
5. Do not use at temperatures below 40°F (4°C) or above 95°F (35°C).

### RECOMMENDED SUBSTRATES

- Fully cured concrete, (at least 28 days old)
- Masonry block
- Cement mortars and levelling coats
- Gypsum plaster - walls only (primed with PLANICRETE®50)

- Gypsum wallboard - walls only (may be primed with PLANICRETE 50)
- Properly prepared cementitious terrazzo floors
- Properly prepared existing unglazed floor tiles and paving bricks
- Cementitious backer units
- 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:  
Pour in approximately 1.5 US gal. (5,7 L) of cold water and gradually add one 50 lbs. (22,7 kg) bag of ULTRA/FLEX 3 powder while slowly mixing.
  - 2.2 Use a low speed mixer (approximately 300 RPM).
  - 2.3 Avoid air entrapment and prolonged mixing which will shorten the pot life.
  - 2.4 Mix thoroughly to a homogeneous and smooth consistency.
  - 2.5 After mixing, let stand ("slake") for 10 to 15 minutes.
  - 2.6 Restir without adding any more liquid or dry powder.
  - 2.7 Some stiffening may occur before all material is used (about 1.5 to 2 hours). If so, simply restir by hand or machine, but do not add any liquid.
  - 2.8 Wash tools and hands with 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 commercial as well as marble, granite, and other natural stone installations, achieve at least 95% mortar contact in accordance with applicable ANSI specifications and TCA guidelines.  
**Note:** All trowel patterns, regardless of depth, should be square-notched and not "V" or rounded types.
  - 3.2 Using the flat or straight edge of the trowel, apply a thin pressure-applied coat to the substrate. Follow



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9 MORTARS AND ADDITIVES

POLYMER-MODIFIED ONE-STEP MORTAR

## REFERENCES

Meets or exceeds ANSI A118.4 requirements.

## TECHNICAL DATA

Pot life at 72°F (22°C)	Approximately 2 hours
Open time at 72°F (22°C)	20 minutes
Initial cure at 72°F (22°C)	16 - 24 hours
Final cure at 72°F (22°C)	28 days
Shear strength per ANSI A118.4 tests (at 28 days):	
Ceramic mosaic	420 psi (2,91 MPa)
Quarry tile to plywood	260 psi (1,81 MPa)
Quarry tile to quarry tile	700 psi (4,86 MPa)
Cleanability	With water while fresh

## PACKAGING

Bag: 50 lbs. (22,7 kg)

## COLOR

Gray and white

## SHELF LIFE

12 months when stored in a dry heated area. Protect from moisture.

## APPROXIMATE COVERAGES

<b>Square notched trowels</b>	<b>50 lbs. (22,7 kg)</b>
1/4" x 1/4" x 1/4" (6 mm x 6 mm x 6 mm)	75 - 90 sq. ft. (7 - 8,4 m <sup>2</sup> )
1/4" x 3/8" x 1/4" (6 mm x 9 mm x 6 mm)	55 - 65 sq. ft. (5,1 - 6 m <sup>2</sup> )

## 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.

- 3.3 Set tiles before surface of the mortar "skins over". If "skin over" occurs, scrape off and replace with fresh mortar. Place tiles firmly in position with a slight twisting motion to ensure good contact with the mortar.
- 3.4 Follow immediately with proper and thorough beat-in to flatten the ridges or notches into a continuous bed, allowing at least 25% of the thickness of each tile to be embedded in the ULTRA/FLEX 3 mortar.
- 3.5 Make all alignments and adjustments within 45 minutes following the beat-in procedure.
- 3.6 Clean all joints and wipe smudges from the tile face with a damp towel.
- 3.7 Do not disturb, grout or walk over tiles for at least 24 hours after installation.
- 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 within the tile work where specified or where necessary. Refer to the Tile Council of America or TTMAC Handbooks for details.
- 4.2 Do not cover any expansion joints with mortar.
- 4.3 Cut tiles on both sides along the edges of expansion joints or control joints.
- 4.4 Protect tilework with metal strips along both edges of structural building expansion joints.

- 4.5 Install the specified compressible bead and sealant in all expansion and control joints.
5. **GROUTING**  
Allow tiles to reach a firm set before grouting with the appropriate MAPEI grout. Typically 16 - 24 hours.
6. **PROTECTION**
- 6.1 Provide for dry, heated storage on site and deliver materials at least 24 hours before tilework begins.
- 6.2 **Floors:** Keep free from general traffic for at least 72 hours after installation. Plywood or stepping boards may be used after 24 hours when occasional stepping on the floor is unavoidable.
- 6.3 **Walls:** Protect from impact, vibrations and heavy hammering on adjacent and opposite walls for at least 14 days after installation.

### 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.

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