



MAPEI'S **ANSI A118.15** TILE AND STONE MORTARS

*Granirapid
Kerabond T / Keralastic
Kerabond/Keralastic
Ultraflex LFT
Ultraflex LFT Rapid*

*MAPEI Ultralite S2
MAPEI Ultralite Mortar
MAPEI Ultralite S1 Quick
Ultraflex 3
Ultraflex RS*



How MAPEI has expanded its A118.15 mortar offering

In 2012, the tile installation industry finalized the new category “Improved Modified Dry-Set Cement Mortars” that is designated A118.15, and updated the standard’s testing requirements for 2018. This standard joined A118.1 (unmodified mortars), A118.4 (modified standard mortars) and A118.11 (mortars for use over plywood) as an additional tool in differentiating products. The A118.15 standard details the requirements for high-performance mortars that can be used in freeze/thaw environments, submerged applications, areas with elevated expansion and deflection, hot environments, etc. Additionally, the standard allows mortars to be categorized as extended working time (E), slip-resistant (T) and fast-setting (F).

MAPEI has pushed for this standard for many years as the U.S. market has been slow to adopt the Europe’s ISO criteria for mortars that already include the “E,” “T” and “F” categories. MAPEI also was instrumental in developing the testing methodology and minimum performance requirements for A118.15 while working with the labs and technical departments of other industry participants. This standard allows specifiers to call out the performance requirements that they need on the job without fear that the installer will substitute a less robust product due to last-minute value engineering.

For years, MAPEI has listed the ISO standards that its products meet and is proud to list the ANSI A118.15 information as well. Because the requirements for ISO and ANSI differ somewhat,

MAPEI has had to carefully engineer its mortars to be able to meet both. Many MAPEI mortars are fully compliant with the A118.15 standard, and those “meeting and exceeding” the specification will indicate this on their Technical Data Sheets and packaging. These mortars have been tested for and passed all 12 of the standard’s requirements (15 requirements for fast-setting mortars). See the charts on the back cover for the requirements.

MAPEI has previously featured several mortars as fully compliant with ANSI A118.15: *Granirapid*® System, *Kerabond/Keralastic*™ System, *Kerabond*® T / *Keralastic*® System, *Ultraflex*™ 3 and *Ultraflex RS*. Now MAPEI is proud to extend this list with additional mortars that were optimized to achieve this standard: *Ultraflex LFT*™, *Ultraflex LFT Rapid*, *MAPEI Ultralite*™ S2, *MAPEI Ultralite Mortar* and *MAPEI Ultralite S1 Quick* are mortars that fully meet all aspects of A118.15, and their Technical Data Sheets are being updated to reflect this compliance.

For help in interpreting the data and in deciding whether mortars under consideration are a good fit for service environments – as defined in the Tile Council of North America’s (TCNA) Handbook or the Terrazzo Tile and Marble Association of Canada’s (TTMAC) Tile Installation Manual – contact MAPEI’s Technical Services Department or view the technical data at www.mapei.com.



MAPEI’s expanded offering of ANSI A118.15 mortars

MAPEI’s ANSI A118.15 high-performance mortars allow specifiers to call out desired job installation requirements, while protecting contractors from value engineering bidding, providing all the benefits of the characteristics described by the TCNA Handbook.

Premium Mortars

Granirapid System

Premium, rapid-setting, flexible tile mortar

Features and Benefits

- Two-component system for maximum deformability
- High-performance bond strengths
- Early mechanical strength development
- Best for most difficult tiles, substrates and conditions
- Allows grouting in 3 to 4 hours
- Superior drying-out characteristics
- Low residual moisture does not contribute to efflorescence
- Allows water submersion in 72 hours
- Excellent for large tile and ungauged tile
- Excellent freeze/thaw durability
- Lifetime commercial/residential system warranty

Industry Standards and Approved Uses

- ISO 13007: Classification C2FS2P2
- ANSI: Meets or exceeds ANSI A118.4F, ANSI A118.11 and ANSI A118.15F bond-strength requirements
- Approved for exterior facades
- Approved for submerged applications
- Approved for steam rooms



	Product Code	Color	Packaging
U.S./	7052057	N/A	Jug: 2 U.S. gals. (7.57 L)
Canada	7052056	N/A	Pail: 5 U.S. gals. (18.9 L)
	7052055	N/A	Drum: 55 U.S. gals. (208 L)
	7051040	Gray	Bag: 50 lbs. (22.7 kg)
	7051041	White	Bag: 46 lbs. (20.9 kg)



Ultraflex LFT Rapid

Premium, rapid-setting, large-and-heavy-tile mortar with polymer

Features and Benefits

- Polymer-enriched for high performance and deformability
- Nonsag formula for large-and-heavy tile and stone in wall applications
- Nonslump for large-and-heavy tile and stone in floor applications
- For thicker bond coats from 3/32" to 1/2" (2.5 to 12 mm)
- Smooth and creamy consistency makes it easy to apply.
- Allows grouting in 3 to 4 hours
- Lifetime commercial/residential system warranty

Industry Standards and Approved Uses

- ISO 13007: Classification C2TFS1P1
- ANSI: Meets or exceeds ANSI A118.4HTF, ANSI A118.11 and ANSI A118.15HTF bond-strength requirements
- Approved for exterior facades
- Approved for submerged applications



ISO 13007 C2TFS1P1



	Product Code	Color	Packaging
U.S./	14150	Gray	Bag: 50 lbs. (22.7 kg)
Canada	14250	White	Bag: 50 lbs. (22.7 kg)



MAPEI Ultralite S2

Premium, highly deformable, lightweight thin-tile mortar with polymer

Features and Benefits

- Polymer-enriched for high performance and deformability
- Extended coverage formula for most types and sizes of thin tiles
- Smooth, creamy consistency with easy-glide troweling
- 25-lb. (11.3-kg) bag provides the same coverage as a 50-lb. (22.7-kg) bag of a standard polymer-modified mortar
- Superior transfer promotes full coverage for tile panels
- Excellent wet-out characteristics promote bonding
- Maximum embedded thickness of 3/8" (10 mm)
- Contains recycled material
- Lifetime commercial/residential system warranty

Industry Standards and Approved Uses

- ISO 13007: Classification C2ES2P2
- ANSI: Exceeds ANSI A118.4E, ANSI A118.11 and ANSI A118.15E
- SCS Green Squared Certified per ANSI A138.1
- Extended open time, adjustability and pot life
- Approved for exterior facades
- Approved for steam rooms



ISO 13007 C2ES2P2



	Product Code	Color	Packaging
U.S.	1201511	Gray	Bag: 25 lbs. (11.3 kg)
	1201611	White	Bag: 25 lbs. (11.3 kg)
Canada	1201511C	Gray	Bag: 25 lbs. (11.3 kg)
	1201611C	White	Bag: 25 lbs. (11.3 kg)



MAPEI Ultralite Mortar

Premium, lightweight mortar with polymer for large-and-heavy tile

Features and Benefits

- Polymer-enriched for high performance and deformability
- Nonsag formula for large-and-heavy tile and stone in wall applications
- Nonslump for large-and-heavy tile and stone in floor applications
- For thicker bond coats from 3/32" to 1/2" (2.5 to 12 mm)
- 25-lb. (11.3-kg) bag provides the same coverage as a 50-lb. (22.7-kg) bag of a standard polymer-modified mortar
- Designed with Universal Color Formula™ for installations with light-colored stones and translucent marble
- Smooth and creamy consistency
- Contains more than 20% recycled content
- Lifetime commercial/residential system warranty

Industry Standards and Approved Uses

- ISO 13007: Classification C2TES1P1
- ANSI: Exceeds ANSI A118.4HTE, ANSI A118.11 and ANSI A118.15HTE bond-strength requirements
- Exceptional open time and pot life
- Approved for steam rooms



ISO 13007 C2TES1P1



	Product Code	Packaging
U.S.	14625000	Bag: 25 lbs. (11.3 kg)
Canada	1462500021	Bag: 25 lbs. (11.3 kg)



Premium Mortars

MAPEI Ultralite S1 Quick

Premium, rapid-setting, lightweight mortar with polymer for large-and-heavy tile

Features and Benefits

- Polymer-enriched for high performance and deformability
- Nonsag formula for large-and-heavy tile and stone in wall applications
- Nonslump for large-and-heavy tile and stone in floor applications
- Smooth and creamy consistency for easy handling and application
- For bond coats up to 1/2" (12 mm)
- 25-lb. (11.3-kg) bag provides the same coverage as a 50-lb. (22.7-kg) bag of a standard polymer-modified mortar
- Ready to grout in 3 to 4 hours
- Contributes to green projects that require greater than 15% recycled content
- Lifetime commercial/residential system warranty

Industry Standards and Approved Uses

- ISO 13007: Classification C2TFS1P1
- ANSI: Exceeds ANSI A118.4HTF, ANSI A118.11 and ANSI A118.15HTF bond-strength requirements
- SCS Green Squared Certified per ANSI A138.1
- Approved for steam rooms



ISO 13007 C2TFS1P1



	Product Code	Color	Packaging
U.S./	2428011	Gray	Bag: 25 lbs. (11.3 kg)
Canada	2428611	White	Bag: 25 lbs. (11.3 kg)



Ultraflex 3

Premium tile mortar with polymer

Features and Benefits

- Polymer-enriched for high performance and deformability
- High content of unique dry polymer
- Superior adhesion to substrate and tile
- Can be used in both thin-set and large-and-heavy-tile applications
- Excellent freeze/thaw durability
- Lifetime commercial/residential system warranty

Industry Standards and Approved Uses

- ISO 13007: Classification C2ES1P1
- ANSI: Exceeds ANSI A118.4E, ANSI A118.11 and ANSI A118.15E bond-strength requirements
- Approved for exterior facades
- Approved for submerged applications



ISO 13007 C2ES1P1



	Product Code	Color	Packaging
U.S.	0060058	Gray	Bag: 50 lbs. (22.7 kg)
	0060059	White	Bag: 50 lbs. (22.7 kg)
Canada	006005821	Gray	Bag: 50 lbs. (22.7 kg)

Ultraflex RS

Premium, rapid-setting tile mortar with polymer

Features and Benefits

- Polymer-enriched for high performance and deformability
- High content of unique dry polymer
- Superior adhesion to substrate and tile
- Ready to grout in 2 to 3 hours
- 25-year commercial/residential system warranty

Industry Standards and Approved Uses

- ISO 13007: Classification C2FS1P1
- ANSI: Exceeds ANSI A118.4F, ANSI A118.11 and ANSI A118.15F requirements for fast-setting mortars



ISO 13007 C2FS1P1



	Product Code	Color	Packaging
U.S./	0110044	Gray	Bag: 25 lbs. (11.3 kg)
Canada	0110045	Gray	Bag: 50 lbs. (22.7 kg)
	0110047	White	Bag: 50 lbs. (22.7 kg)



Premium Mortars

Kerabond T / Keralastic System

Premium, flexible large-and-heavy-tile and thin-set mortar

Features and Benefits

- Two-component system for maximum deformability
- High-performance bond
- Best for most difficult tiles, substrates and conditions
- For thicker bond coats from 3/32" to 1/2" (2.5 to 12 mm)
- Excellent for large tile and ungauged tile
- Exceptional bond strength, flexural strength and elongation
- Excellent freeze/thaw durability
- Lifetime commercial/residential system warranty

Industry Standards and Approved Uses

- ISO 13007: Classification C2ES2P2
- ANSI: Meets or exceeds A118.4HE, A118.11 and A118.15HE requirements
- Approved for exterior facades
- Approved for submerged applications
- Approved for steam rooms



ISO 13007 C2ES2P2



	Product Code	Color	Packaging
U.S.	10152	Gray	Bag: 50 lbs. (22.7 kg)
	10252	White	Bag: 50 lbs. (22.7 kg)
	7022007	N/A	Jug: 2 U.S. gals. (7.57 L)
	7020020	N/A	Pail: 5 U.S. gals. (18.9 L)
	7020200	N/A	Drum: 55 U.S. gals. (208 L)
Canada	1015221	Gray	Bag: 50 lbs. (22.7 kg)
	1025221	White	Bag: 50 lbs. (22.7 kg)
	7022007	N/A	Jug: 2 U.S. gals. (7.57 L)
	7020020	N/A	Pail: 5 U.S. gals. (18.9 L)
	7020200	N/A	Drum: 55 U.S. gals. (208 L)

Kerabond/Keralastic System

Premium, flexible tile mortar

Features and Benefits

- Two-component system for maximum deformability
- Best for most difficult tiles, substrates and conditions
- Exceptional bond strength, flexural strength and elongation
- Excellent freeze/thaw durability
- Lifetime commercial/residential system warranty

Industry Standards and Approved Uses

- ISO 13007: Classification C2ES2P2
- ANSI: Meets or exceeds ANSI A118.4E, ANSI A118.11 and ANSI A118.15E bond-strength requirements
- Approved for exterior facades
- Approved for submerged applications
- Approved for steam rooms



ISO 13007 C2ES2P2



	Product Code	Color	Packaging
U.S.	10152	Gray	Bag: 50 lbs. (22.7 kg)
	10252	White	Bag: 50 lbs. (22.7 kg)
	7022007	N/A	Jug: 2 U.S. gals. (7.57 L)
	7020020	N/A	Pail: 5 U.S. gals. (18.9 L)
	7020200	N/A	Drum: 55 U.S. gals. (208 L)
Canada	1015221	Gray	Bag: 50 lbs. (22.7 kg)
	1025221	White	Bag: 50 lbs. (22.7 kg)
	7022007	N/A	Jug: 2 U.S. gals. (7.57 L)
	7020020	N/A	Pail: 5 U.S. gals. (18.9 L)
	7020200	N/A	Drum: 55 U.S. gals. (208 L)

Ultraflex LFT

Premium, large-and-heavy-tile mortar with polymer

Features and Benefits

- Polymer-enriched for high performance and deformability
- Nonsag formula for large-and-heavy tile and stone in wall applications
- Nonlump for large-and-heavy tile and stone in floor applications
- For thicker bond coats from 3/32" to 1/2" (2.5 to 12 mm) thick
- Smooth and creamy consistency for easy handling and application
- Lifetime commercial/residential system warranty

Industry Standards and Approved Uses

- ISO 13007 classification C2TES1P1
- ANSI specifications A118.4HTE, A118.11 and A118.15HTE
- Approved for exterior facades
- Approved for submerged applications
- Exceptional open time
- Excellent adjustability



ISO 13007 C2TES1P1



	Product Code	Color	Packaging
U.S.	11250000	Gray	Bag: 50 lbs. (22.7 kg)
	11350000	White	Bag: 50 lbs. (22.7 kg)
Canada	1125000021	Gray	Bag: 50 lbs. (22.7 kg)
	1135000021	White	Bag: 50 lbs. (22.7 kg)



REQUIREMENTS FOR A118.15-COMPLIANT MORTARS (VERSION 2018)

The following tests in *italics* deal with extreme conditions that are challenging for mortars to meet.

Test	Property	Test Section	Duration	Requirement
1	Open time	5.3.6	20 minutes	75 psi (0.52 MPa) or higher
2	Glazed wall tile shear strength	7.1.2	7 days	450 psi (3.10 MPa) or higher
3	<i>Glazed wall tile shear strength</i>	<i>7.1.3</i>	<i>7 days, water immersion</i>	<i>250 psi (1.72 MPa) or higher</i>
4	<i>Glazed wall tile shear strength</i>	<i>7.1.4</i>	<i>28 days, heat aging</i>	<i>450 psi (3.10 MPa) or higher</i>
5	Porcelain tile shear strength	7.2.2	1 day	100 psi (0.69 MPa) or higher
6	Porcelain tile shear strength	7.2.3	7 days	300 psi (2.07 MPa) or higher
7	<i>Porcelain tile shear strength</i>	<i>7.2.4</i>	<i>7 days, water immersion</i>	<i>200 psi (1.38 MPa) or higher</i>
8	Porcelain tile shear strength	7.2.5	28 days	400 psi (2.76 MPa) or higher
9	<i>Porcelain tile shear strength</i>	<i>7.2.6</i>	<i>28 days, with freeze/thaw cycling</i>	<i>250 psi (1.72 MPa) or higher</i>
10	<i>Porcelain tile shear strength</i>	<i>7.2.7</i>	<i>28 days, heat aging</i>	<i>400 psi (2.76 MPa) or higher</i>
11	Quarry tile shear strength	7.3.2	28 days	150 psi (1.03 MPa) or higher
12	<i>Quarry tile shear strength</i>	<i>7.3.3</i>	<i>28 days, with freeze/thaw cycling</i>	<i>100 psi (0.69 MPa) or higher</i>

ADDITIONAL REQUIREMENTS FOR A118.15E-, A118.15F- AND A118.15T-COMPLIANT MORTARS

Test	Property	Test Section	Duration	Requirement
13	Extended open time (A118.15E)	5.3.6	30 minutes	75 psi (0.52 MPa) or higher
14	Reduced open time (A118.15F)	5.3.7	10 minutes	75 psi (0.52 MPa) or higher
15	Final set (A118.15F)	5.2	< 4 hours	< 4 hours
16	Porcelain tile shear strength (A118.15F)	7.5.1	4 hours	50 psi (0.34 MPa) or higher
17	Sag (A118.15T)	6.1.5	20 minutes	.02" (0.5 mm) or less

MAPEI Headquarters of North America

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(954) 246-8888

Technical Services

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

Customer Service

1-800-42-MAPEI (1-800-426-2734)

For the most current BEST-BACKEDSM product data and warranty information, visit www.mapei.com.

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