



Ultrabond ECO[®] 995

**Premium Moisture-Control,
Sound-Reduction and
Wood-Flooring Adhesive**



DESCRIPTION

Ultrabond ECO 995 is MAPEI's premium, 100%-solids, one-component, moisture-curing urethane adhesive for all types of wood flooring and bamboo. *Ultrabond ECO 995* can be used by itself as a direct bonding material or in a single-coat application method that provides a superior bond and moisture vapor emission control on concrete slabs (up to 15 lbs. [6,80 kg] in MVER or 85% relative humidity). *Ultrabond ECO 995* also provides sound-reduction properties, making it suitable for use in multi-unit housing project. The formulation of *Ultrabond ECO 995* has been developed using rapidly renewable raw materials and provides the ultimate in bonding environmentally sensitive wood flooring.

FEATURES AND BENEFITS

- Moisture barrier, sound reduction and bonding system in a single product
- 100%-solids formulation; no solvent added
- Utilizes rapidly renewable raw materials
- Excellent green strength to hold planks in place during installation
- Extremely low-odor formula with negligible VOC content
- Moisture-control clip-on trowel attachment is affixed inside the bucket under the lid
- Approved for use with all types of solid hardwood and exotic planks/shorts; parquet; bamboo flooring*; acrylic impregnated wood and laminated plank; cork underlayment; and all sizes of engineered wood flooring
- Approved for use with ceramic tile and stone in mixed media installations using wood flooring

* Consult MAPEI's Technical Services Department for recommendations regarding bamboo, as some bamboo flooring is not suitable for direct bonding methods.

INDUSTRY STANDARDS AND APPROVALS

LEED Points Contribution

LEED Points

MR Credit 5, Regional Materials**	Up to 2 points
MR Credit 6, Rapidly Renewable Materials	1 point
IEQ Credit 4.1, Low-Emitting Materials – Adhesives & Sealants	1 point

** Using this product may help contribute to LEED certification of projects in the categories shown above. Points are awarded based on contributions of all project materials.

WHERE TO USE

- Interior residential (rental apartments, condominiums, homes)
- Interior commercial (office buildings, hotel rooms and hallways, restaurant dining areas)
- Interior heavy commercial (hotel lobbies, convention centers, airports, department stores)
- Interior institutional (hospitals, schools, universities, libraries, government buildings)

LIMITATIONS

- Do not install over any substrates containing asbestos.
- For interior installations only
- Not recommended for flooring designed for nail-down installations only
- Do not apply over any adhesive residues including cutback adhesive.
- Do not install in areas not recommended by the wood flooring manufacturer.



- Do not install as an adhesive when the moisture vapor emission rate (MVER) exceeds 3 lbs. per 1,000 sq. ft. (1,36 kg per 92,9 m²) per 24 hours, when using the anhydrous calcium chloride test (ASTM F1869). For MVERs between 3 lbs. to 15 lbs. per 1000 sq. ft. (1,36 to 6,80 kg per 92,9 m²) per 24 hours, install using the Moisture Control Method (see the section "Product Application" for moisture control below).
- Do not install as an adhesive when the relative humidity (RH) of the concrete slab exceeds 75% (ASTM F2170). For an RH between 75% and 85%, install using the Moisture Control Method.
- Use only when the substrate temperature is between 50°F and 90°F (10°C and 32°C), or when the ambient relative humidity is between 20% and 80%.
- Do not use as a leveling, patching or subfloor repair material.

SUBSTRATE PREPARATION

- All substrates must be structurally sound, dry, solid and stable.
- Substrate should be clean and free of dust, dirt, oil, grease, paint, curing agents, concrete sealers, loosely bonded toppings, loose particles, old adhesive residues, and any other substance or condition that may prevent or reduce adhesion.
- Substrates must be flat to 3/16" in a 10-foot span (4,5 mm in a 3,05-meter span). Refer to wood flooring manufacturer's guidelines.
- Concrete and cement-based underlayments and patches must be fully cured and free of any hydrostatic and/or moisture problems.
- Use anhydrous calcium chloride tests to determine moisture vapor emission rates (MVER's) according to ASTM F1869 or use moisture probe tests to determine RH according to ASTM F2170.
- Concrete slabs exceeding 15 lbs. (6,80 kg) MVER or 85% RH should be treated with a moisture vapor reduction product. Refer to Technical Data Sheets at www.mapei.com for information on these products.
- Use a moisture meter to check the RH of the wood flooring, surface of the substrate, and general jobsite area. Follow the flooring manufacturer's guidelines.

MIXING

Note: Utilize all appropriate personal safety equipment during product use. Refer to Material Safety Data Sheet (MSDS) for more information.

- Ready to use; no mixing necessary

SUITABLE SUBSTRATES

A. Direct Bonding Method

- Exterior-grade plywood and other approved wood underlayments (per flooring manufacturer recommendations)
- Concrete and properly prepared cement terrazzo

- Existing, properly prepared ceramic tile
- Cement-based self-leveling underlayments and patching compounds
- *Planiseal EMB* epoxy moisture-reduction barrier
- Properly installed *Mapeguard 2* premium crack-isolation and sound-reduction sheet membrane
- Properly prepared, primed gypsum underlayments that meet the requirements for compressive strength according to ASTM F2419
- Radiant-heat systems that have been properly installed
- Refer to MAPEI's "Surface Preparation Requirements" reference guide RGF0409 for floor-covering installation systems at www.mapei.com.

B. Moisture Control Method

- Concrete and properly prepared cement terrazzo
- Existing, properly prepared ceramic tile
- Exterior-approved, cement-based patching compounds

PRODUCT APPLICATION

Consult MAPEI's Technical Services Department for installation recommendations regarding substrates and conditions not listed.

A. Direct Bonding Method

1. Read all installation instructions thoroughly before installation.
2. Select the appropriately notched trowel (see "Approximate Product Coverage" section).
3. Spread adhesive evenly over the subfloor, keeping the trowel at a 45° angle to the subfloor.
4. Only apply as much as can be installed within 45 minutes.
5. Install wood flooring in strict accordance to flooring manufacturer's written instructions.
6. Adhesive transfer to the backing should be confirmed periodically by lifting the flooring material.

B. Moisture Control Method

1. Read all installation instructions thoroughly before installation.
2. Remove the special clip-on trowel attachment from underneath *Ultrabond ECO 995* bucket lid and attach to a standard 11" (28-cm) trowel.
3. Using the trowel's flat side, key *Ultrabond ECO 995* into the subfloor, creating a smooth void-free surface.
4. Once the adhesive has been keyed in, immediately spread *Ultrabond ECO 995* using the special clip-on trowel attachment. Trowel ridge lines should be perpendicular to the wood-flooring installation direction. Hold the trowel at a 60° to 90° angle to the subfloor, making sure that the subfloor is covered 100% with adhesive and that no void spots appear other than the "valley bottoms" created by the trowel. These areas will fill in as the wood is installed.
5. Only apply as much as can be installed within 45 minutes.

Product Performance Properties

Laboratory Tests	Results
Polymer type	Polyurethane
Percent solids	100%
VOCs (Rule #1168 of California's SCAQMD)	< 20 g/L
Odor	Light and sweet
Trowelability	Easy
Density	14 lbs. per U.S. gal. (1,69 g per mL)
Consistency	Smooth paste
Color	Off-white
Shelf life	1 year when stored in original packaging at 73°F (23°C)
Storage conditions	50°F to 90°F (10°C to 32°C)
Flash point (Tag)	> 200°F (93°C)

Protect containers from freezing in transit and storage. Provide for heated storage on site and deliver all materials at least 24 hours before work begins.

ASTM Standards for Sound Reduction; MAPEI Corporation and MAPEI Inc. certify that the following sound tests (for tile and wood flooring) were conducted and results supplied by NGC Testing Services, Buffalo, NY.

Sound Reduction Ratings – Engineered Wood ¹ 3/8" (10 mm) Thick Over 6" (15 cm) Concrete Slab ²		
	No Suspended Ceiling	Suspended Gypsum Ceiling
ASTM E90-09/E413-04 (STC)	50 (NGC Test No: 5010020)	67 (NGC Test No: 5010019)
ASTM E492-09/E989-09 (IIC)	50 (NGC Test No: 7010034)	68 (NGC Test No: 7010037)
ASTM E2179-03 (Delta IIC)	21 (NGC Test No: 7010035)	N/A

For MAPEI's *Ultrabond ECO 995* wood-flooring adhesive applied with clip-on trowel attachment

¹ 1 layer of 0.371" x 3" (9,4 mm x 76,2 mm) random-length, oak, engineered, prefinished hardwood flooring

² 6" (15 cm) thick reinforced concrete slab; weight is 70 PSF (366.1 kg/m²)

Application Characteristics over Porous and Nonporous Substrates

Engineered Wood Flooring	Flash Time [†]	Working Time ^{††}	Adjustability Time ^{†††}
At 50°F (10°C) and 80% RH	0 minutes	45 to 60 minutes	3 to 4 hours
At 73°F (23°C) and 50% RH	0 minutes	45 to 60 minutes	2 to 3 hours
At 100°F (38°C) and 20% RH	0 minutes	45 to 60 minutes	4 to 5 hours

[†] Flash time is the recommended amount of time for a freshly applied adhesive to remain exposed to the air before the installation of floor covering.

^{††} Working time is the maximum amount of time an adhesive can remain exposed to the air and still effectively bond to the floor covering.






^{†††} Adjustability time is the window of time during which the floor covering can be repositioned without compromising the bond of the adhesive.

Note: Working time may vary based on temperature, humidity, substrate porosity, trowel size and jobsite conditions.

Packaging

Product Code	Size
99568	5 U.S. gals. (18,9 L)


Approximate Product Coverages – Direct Bonding Method

Flooring Type	Typical Trowel	Coverage*
Cork underlayment	1/16" x 1/16" x 1/16" (1,5 x 1,5 x 1,5 mm) 	125 to 185 sq. ft. per U.S. gal. (3,06 to 4,53 m ² per L)
Finger block parquet	1/8" x 1/8" x 1/8" (3 x 3 x 3 mm) 	70 to 80 sq. ft. per U.S. gal. (1,71 to 1,96 m ² per L)
Wood flooring < 1/2" (12 mm) thick	3/16" x 5/32" (4,5 x 4 mm) 	45 to 55 sq. ft. per U.S. gal. (1,10 to 1,35 m ² per L)
Wood flooring 1/2" to 5/8" (12 to 16 mm) thick	1/8" x 1/4" x 1/4" (3 x 6 x 6 mm) 	40 to 50 sq. ft. per U.S. gal. (0,98 to 1,22 m ² per L)
Wood flooring 3/4" (19 mm) thick	1/4" x 1/4" x 1/4" (6 x 6 x 6 mm) 	30 to 40 sq. ft. per U.S. gal. (0,73 to 0,98 m ² per L)

Ultrabond
ECO 995



Product Coverages – Moisture Control Method

Typical Trowel	Coverage *
V-notch with lift spacers – 3/8" x 3/16" x 3/8" x 1/16" (10 x 4,5 x 10 x 1,5 mm) –attached under the Ultrabond ECO 995 bucket lid	 30 to 40 sq. ft. per U.S. gal. (0,73 to 0,98 m ² per L)

* Trowel dimensions are depth/width/space. Coverages shown are for estimating purposes only. Actual jobsite coverages may vary according to substrate conditions, type of trowel used and setting practices.

- Install wood flooring in strict accordance with the flooring manufacturer's written instructions.
- Install flooring immediately, pressing firmly into the adhesive bed to ensure that all ridges are compressed into a monolithic layer. Periodically check for 100% coverage over the subfloor and transfer to the back of the flooring.

Note: Use a fresh clip-on trowel attachment for each bucket of Ultrabond ECO 995 used. Do not reuse clip-on trowel attachment. Proper coverage is paramount for warranty coverage.

CLEANUP

- Immediately clean any adhesive smudges from the flooring material's surface with Ultrabond® Urethane Cleaner while the adhesive is still fresh/wet.

Note: Ultrabond ECO 995 is extremely difficult to remove when cured.
- Immediately clean tools with Ultrabond Urethane Cleaner while the adhesive is still fresh/wet.

PROTECTION

- Protect from light traffic for at least 12 hours. Protect from heavy traffic for at least 24 hours.
- Building owners should be advised of the wood flooring manufacturer's guidelines for climate control settings (temperature and humidity). These conditions must be monitored and kept constant to ensure the overall performance and long-term success of the installation.

RELATED DOCUMENTS

Reference Guide: Surface Preparation Requirements for floor-covering installation systems	RGF0409*
---	----------

* At www.mapei.com.

Refer to MAPEI's Material Safety Data Sheet (MSDS) for specific data related to VOCs, health and safety, and handling of product.

STATEMENT OF RESPONSIBILITY

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. **ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.**

We proudly support the following industry organizations:



MAPEI Headquarters of the Americas
 1144 East Newport Center Drive
 Deerfield Beach, Florida 33442
 Phone: 1-888-US-MAPEI
 (1-888-876-2734)

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-BACKED™ product data and warranty information, visit www.mapei.com.

Edition Date: July 13, 2010
 PR5837 995D_G10Evp © 2010 MAPEI Corporation.
 All Rights Reserved. Printed in the USA.