

Ultrabond ECO 420

High-Performance, Moisture-Resistant,
Indoor/Outdoor Carpet Adhesive



DESCRIPTION

Ultrabond ECO[®] 420 is a proprietary, water-based adhesive formulation designed for both indoor and outdoor carpet. *Ultrabond ECO* 420 offers high-moisture-resistant characteristics and excellent bond properties for interior and exterior broadloom carpet installations. *Ultrabond ECO* 420 is also perfectly suited to bond reground rubber underlayments such as *Mapesonic*[™] RM for ceramic tile installations. Due to its unique formulation, it can be installed without the need for moisture testing.

FEATURES AND BENEFITS

- Provides a strong, secure bond to indoor and outdoor broadloom carpet
- Fast-curing; moisture-resistant when dry
- Nonflammable and suitable for use in enclosed spaces

INDUSTRY STANDARDS AND APPROVALS

Green certifications

- Living Building Challenge (LBC) Red List Free: This product has been verified per the most current Red List on the LBC's Website.

WHERE TO USE

- For interior and exterior use with dimensionally stable indoor and outdoor rubber, polypropylene (ActionBac) and closed-cellular urethane foam-backed carpeting
- Approved for interior installation of *Mapesonic RM* rubber membrane to concrete or wood before the installation of tile or stone

LIMITATIONS

- Do not install over substrates containing asbestos.
- Do not use to install nonporous floor coverings over nonporous surfaces.
- Do not use to install solid vinyl flooring.
- Do not use to install vinyl-backed carpet.
- Do not apply over any adhesive residues, including cutback adhesive.
- Do not use over asphalt roofing.
- Do not install in areas with known hydrostatic moisture problems.
- Use only when the substrate temperature is between 50°F and 90°F (10°C and 32°C), and when the ambient RH is between 20% and 80%.
- Do not install unless the temperature of the prepared concrete slab is at least 5 degrees Fahrenheit (2.8 degrees Celsius) above the dew point to avoid condensation.

SURFACE PREPARATION

- All substrates must be properly prepared, structurally sound, dry, solid and stable.
- The substrate should be clean and free of dust, dirt, oil, grease, paint, curing agents, concrete sealers, loosely bonded toppings, loose particles, and any other substance or condition that may prevent or reduce adhesion. All surfaces must be level, even, flat and smooth.

See the “Surface preparation requirements for resilient/carpet adhesives” reference guide in the Floor Covering Installation Systems section of MAPEI’s Website.

SUITABLE SUBSTRATES

- Exterior and marine-grade plywood
- Pressure-treated lumber
- Exterior-approved patching compounds and concrete repair products
- Cement-based self-leveling underlayments and patching compounds (interior use only)
- Asphalt paving (clean, secure and cured)
- Exterior-grade plywood, Group 1, CC type
- Other approved wood underlayments (per manufacturer recommendations)
- Concrete (at least 28 days old) installed according to ASTM F710-18

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

MIXING

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

- Ready to use; no mixing is necessary.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Spread the adhesive evenly over the subfloor, keeping the trowel at a 45-degree angle to the subfloor.
2. For porous substrates: Install the flooring material into the adhesive while it is still wet. For porous-backed material over nonporous substrates: Allow 20 minutes of drying time for the adhesive to build tack before placing flooring material.
3. Install flooring per the flooring manufacturer's written instructions.
4. Periodically confirm adhesive transfer to the backing by lifting the flooring material.
5. Roll the flooring with the recommended-weight roller across the width and length of the flooring surface.

CLEANUP

- Promptly clean any adhesive smudges from the flooring material's surface with water while the adhesive is still fresh/wet.
- Clean tools with water while the adhesive is still fresh/wet.
- If the adhesive has dried, clean with mineral spirits. Use caution with mineral spirits, which may be harmful to some materials.

PROTECTION

- Protect from light traffic for 24 hours, and from heavy traffic for 72 hours.

Product Performance Properties

Laboratory Tests	Results
Solids content	68% to 72%
Polymer type	Styrene butadiene rubber latex
pH	6 to 9
VOCs (Rule #1168 of California's SCAQMD)	19 g per L
VOCs (Section 01350 of California's CDPH)	Passed
Density	8.3 lbs. per U.S. gal. (1.0 g per mL)
Flash point (Tag, closed cup) – ASTM D56	> 212°F (100°C)

Shelf Life and Product Characteristics

Shelf life	2 years when stored in original, unopened packaging at 73°F (23°C)
Consistency	Buttery
Color	Light tan
Storage conditions	40°F to 100°F (4°C to 38°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.

Application Properties

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

Over Porous Substrates	
Flash time*	0 minutes
Working time**	20 to 30 minutes
Over Nonporous Substrates	
Flash time*	20 minutes
Working time**	10 to 20 minutes

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

** *Working time is the maximum amount of time that an adhesive can remain exposed to the air and still effectively bond to the floor covering.*

Flash time and working time may vary based on temperature, humidity, substrate porosity, trowel size and jobsite conditions.

Packaging

Size
Pail: 1 U.S. qt. (9.46 mL)
Pail: 1 U.S. gal. (3.79 L)
Pail: 4 U.S. gals. (15.1 L)

Approximate Coverage***

Flooring Type	Typical Trowel	Coverage		
		Per 1 U.S. qt. (946 mL)	1 U.S. gal. (3.79 L)	4 U.S. gals. (15.1 L)
Smooth-backed carpet	1/8" x 1/8" x 1/8" (3 x 3 x 3 mm), U-notch	21 to 24 sq. ft. (1.95 to 2.23 m ²)	85 to 95 sq. ft. (7.90 to 8.83 m ²)	340 to 380 sq. ft. (31.6 to 35.3 m ²)
Rough-backed carpet	3/16" x 1/8" x 1/8" (4.5 x 3 x 3 mm), V-notch	10 to 13 sq. ft. (0.93 to 1.21 m ²)	40 to 50 sq. ft. (3.72 to 4.65 m ²)	160 to 200 sq. ft. (14.9 to 18.6 m ²)
Mapesonic RM	3/32" x 3/32" x 3/32" (2.5 x 2.5 x 2.5 mm), V-notch	35 to 38 sq. ft. (3.25 to 3.53 m ²)	140 to 150 sq. ft. (13.0 to 13.9 m ²)	560 to 600 sq. ft. (52.0 to 55.7 m ²)

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

RELATED DOCUMENTS

- Reference guide: "Surface preparation requirements for resilient/carpet adhesive" for floor-covering installation systems[†]

[†] At www.mapei.com

ADDITIONAL INFORMATION

Refer to the Safety Data Sheet (SDS) for specific data related to health and safety as well as product handling.

For information on MAPEI's commitment to sustainability and transparency, as well as how MAPEI products may contribute to green building standards and certification systems, contact sustainability-durabilite@mapei.com.

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement nor replace requirements per the TDS in effect at the time of the MAPEI product installation. For the most up-to-date TDS and warranty information, please visit our website at www.mapei.com. **ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.**

Before using, the user must determine the suitability of our products for the intended use, and the user alone assumes all risks and liability. **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.**

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

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