

Ultrabond ECO GPT

Hybrid-Polymer-Based Adhesive for Gauged Porcelain Tile



DESCRIPTION

Ultrabond ECO® GPT is a single-component, nonsag, easy-to-trowel, hybrid-polymer-based adhesive technology specially designed for the installation of gauged porcelain tile and gauged porcelain tile panels/slabs on interior/exterior vertical surfaces and countertops. Unique technology advancements are incorporated in the formulation of *Ultrabond ECO GPT* for delivering instant grab, while allowing for the needed adjustability of panels and large-format tile. Superior bonding performance is complemented with flexibility, deformability and quick-curing characteristics to meet the demands of installing gauged porcelain tile, panels and slabs with application-friendly properties.

FEATURES AND BENEFITS

- Single-component adhesive
- Nonsag performance with panels
- Ready to use, with no mixing required
- Smooth consistency
- Easy to trowel
- Superior transfer promotes full coverage for tile panels
- Extended open time of 30 to 45 minutes
- Adjustability time of 30 minutes
- High bond strength and deformability
- Remains flexible with durability
- Instant grab and holding power
- Troweled only on the back of tile

- Moisture-cure technology
- Easy to clean off tile surface in wet or dried state
- Bonds to tile with urethane/epoxy fiberglass mesh backing
- Bonds to porous and nonporous substrates
- Reduced product waste because the exact amount of product needed can be used

WHERE TO USE

- Most interior/exterior installations on walls and countertops
- For use in residential, light commercial and commercial applications
- Approved for interior wet and dry areas
- Installation of most types and sizes of gauged porcelain tile panels/slabs
- Installations of large-format ceramic and porcelain tile

LIMITATIONS

- Install only at temperatures between 50°F and 95°F (10°C and 35°C).
- Do not use for marble, granite and natural stone. To use directly over gypsum-based patching substrates, apply a suitable primer/sealer before use. See the “Tiling over gypsum” technical bulletin in the Tile & Stone Installation Systems section of MAPEI’s Website.
- Installations of tile over nonporous surfaces, such as waterproofing membranes and existing tile, may require extended setting/curing times.
- Do not use for transparent or translucent glass tile.
- Do not use for installations subject to immersion.
- Lower relative humidity and temperature will significantly extend the curing time.
- Moisture barrier substrates may extend the curing and setting times.
- When the installation is fully cured, avoid exposure to chlorinated acid and alkaline solutions.
- During the curing, do not expose to alcohol, acids or solvent-based materials.
- Completely remove all adhesive residue and other surface contaminants from the substrate.
- Do not use for flooring installations.
- Do not exceed 4 lbs. per square foot (1.8 kg per 0.09 m²) weight limits for vertical application of GPT. Heavier tile will require spacers and ledgers.
- Consult building code requirements for use on exterior building facades.

SUITABLE SUBSTRATES

- Concrete (cured for at least 28 days)
- Masonry cement block, brick, cement mortar beds, render coats and leveling coats
- Cement backer units (CBUs) – see manufacturer’s installation guidelines
- Gypsum wallboard and plaster – interior walls in dry areas only (priming or sealing may be required)
- Existing ceramic and porcelain tile (interior in wet/dry conditions)
- Steel, epoxy and fiberglass
- MAPEI roller-applied waterproofing/crack-isolation membranes

See the “Surface Preparation Requirements” reference guide in the Tile & Stone Installation Systems section of MAPEI’s Website. Consult MAPEI’s Technical Services Department for installation recommendations regarding substrates and conditions not listed.

SURFACE PREPARATION

- All substrates must be structurally sound, stable, clean and free of any substance or condition that may reduce or prevent proper adhesion.
- Substrates to receive gauged porcelain tiles (GPT) must follow ANSI A108.19 2017 standard (“Interior Installation of Gauged Porcelain Tiles and Gauged Porcelain Tile Panels/Slabs by the Thin-Bed Method Bonded with Modified Dry-Set Cement Mortar or Improved Modified Dry-Set Cement Mortar”) per maximum allowable variation in flatness for surfaces to receive gauged porcelain tiles or gauged porcelain tile panels/slabs of 1/8" in 10 feet (3 mm in 3.05 m) and 1/16" in 2 feet (1.5 mm in 0.61 m) from the required plane when measured from the high points in the surface. When installing GPT, consult the recommendations regarding surface preparation, trowel selection and mechanical edge-leveling systems in MAPEI’s reference guides for gauged porcelain tile panels/slabs 3 to 6.5 mm thick for walls. These reference guides can be found in the Tile & Stone Installation Systems section of MAPEI’s Website.
- To activate the controlled moisture-curing process before installing porcelain tile, dampen the substrate with water using a damp sponge or mist lightly with a sprayer. Avoid excessive pooling, saturation or dripping water.

See the “Surface Preparation Requirements” reference guide in the Tile & Stone Installation Systems section of MAPEI’s Website.

MIXING

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

- Ready to use, with no mixing required
- Reseal partially used pails after cleaning adhesive off the pail lip and the groove around the perimeter of the lid. Place a piece of plastic inside of the pail, taking caution not to allow it to contact the lid or protrude outside of the pail. Be sure to fully seat the lid using a rubber mallet.
- When re-opening used containers, remove the lid, peel plastic and cured top layer of material from the container and discard. Proceed to use uncured material.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. For traditional tiles: Choose a notched trowel (see the “Approximate Coverage” chart below) with sufficient depth to achieve more than 80% contact to both the tile and substrate for all interior applications, and greater than 95% for exterior installations and wet applications. It may be necessary to back-butter tiles to meet these requirements. (Refer to ANSI A108.5 specifications and TCNA handbook guidelines.)

For GPT: Choose a notched trowel (see the “Approximate Coverage” chart below) with sufficient depth to achieve more than 80% contact to both the tile and substrate for all interior applications, and greater than 95% for exterior installations and wet applications. Also refer to MAPEI’s reference guides for gauged porcelain tile panels/slabs 3 to 6.5 mm thick for walls. These reference guides can be found in the Tile & Stone Installation Systems section of MAPEI’s Website.

2. Moisten the back of the tile with a damp sponge to remove any dust. Also, dampen the tile surface with water for a more consistent curing rate.
3. With pressure, apply a coat of *Ultrabond ECO GPT* by using the trowel's flat side to key the adhesive onto the back sides of the tiles.
4. Apply additional *Ultrabond ECO GPT* to the back sides of the tiles with the recommended trowel, combing it in a single direction parallel to the tile's shortest dimension, with the notched side.
5. Moisten the substrate with a damp sponge to remove any dust and dampen the surface with water or a light mist via sprayer to achieve a more consistent curing rate.

Note: When tile is placed, care must be taken to ensure maximum coverage, avoiding air pockets and voids under the tile.

6. Open time can vary with jobsite conditions. Check adhesive transfer with a light touch; if product skins over, remove it and apply fresh adhesive. Open time will vary depending upon temperature and humidity.
7. Carefully place the tiles firmly onto the damp substrate, using proper equipment and techniques as specified by GPT manufacturers, as close to the final desired position as practical. Push the tiles back and forth in a direction perpendicular to trowel lines, to collapse the adhesive ridges, force out trapped air and to help achieve maximum coverage, before beating in the tiles.
8. After establishing the desired tile position, use a beat-in paddle or rubber float to firmly set in place. Begin by beating in down the centerline of the panel; do not beat in the edges at this time. Detach any equipment from the panel and place lippage control straps along the edges where adjacent thin porcelain tile will be placed staying 2" to 3" (5 to 7.5 cm) away from the corners.
9. After placement of the lippage control straps, use a beat-in paddle to work it from the centerline of the panel outward to the edges, removing any trapped air and maximizing coverage and transfer. The use of an orbital sander to vibrate the porcelain panel is not necessary.
10. After adjacent tile are placed and grout spacing is set, assemble caps on the lippage control devices and tighten them down.
11. Using a rubber grout float or weighted coated beat-in paddle, tamp the centerline of the gauged porcelain tile or gauged porcelain tile panel/slab along its entire length before removing the suction-cupped frame to provide initial adhesion of the gauged porcelain tile or gauged porcelain tile panel/slab to the wall.
12. Work the edges of the tile panels with the beat-in paddle or rubber grout float between the lippage control devices as necessary to eliminate lippage.
13. Remove excess adhesive from the joint areas so that at least $\frac{2}{3}$ of the tile depth is available for grouting. Plastic tools are preferred to avoid the chance of chipping the face of the thin tile (see ANSI A108.10 guidelines). Wipe any adhesive from the face of the tile with a dry cloth.
14. Allow the adhesive to cure for 8 to 12 hours before removing the lippage control devices.
15. Allow tiles to reach a firm set, typically within 24 hours. Then grout with an appropriate MAPEI grout.

EXPANSION AND CONTROL JOINTS

- Provide for expansion and control joints as specified per TCNA Method EJ171 or TTMAC Specification Guide 09 30 00, Detail 301MJ.
- Do not cover expansion joints with adhesive.

CLEANUP

- *Ultrabond ECO GPT* develops exceptional bond strength. It is formulated to be relatively easy to remove from the porcelain tile even after curing. Following best practices, wipe the adhesive when wet with a dry, non-abrasive towel as you work, not allowing the product to cure.

- After it cures, adhesive may be removed with a plastic scraper and a dry, non-abrasive towel, taking care not to damage the tile finish. Immediately clean all tools and equipment before the material cures.
- If the material cures on trowels or tools, it can be peeled off by scraping the next day.
- *Ultrabond Urethane Cleaner* may also be used while the adhesive is still fresh/wet.

PROTECTION AND CURING

- Protect containers from freezing in transit and storage.
- Provide for dry, heated storage on site and deliver all materials at least 24 hours before work begins.
- Because temperature and humidity (during and after installation of tile) affect the final curing time, allow for extended periods of cure and protection when jobsite temperatures drop below 60°F (16°C) and/or when relative humidity is lower than 50%.

Product Performance Properties

Laboratory Tests	Results
Solids content	100%
VOC content (SCAQMD Rule 1168)	< 65 g per L
Typical VOC content per SCAQMD Rule 1168 testing methods	8 g per L
Density	11 lbs. per U.S. gal. (1.3 g per mL)
Flash point	199.6°F (93.1°C)

Shelf Life and Product Characteristics

Shelf life	1 year when stored in original, unopened packaging at 73°F (23°C)
Adhesive type	Moisture-cured hybrid polymer
Consistency	Smooth paste
Color	Light tan
Storage conditions	50°F to 90°F (10°C to 32°C)

Application Properties

Repositioning time	Up to 30 minutes
Open time at 73°F (23°C)	30 minutes
Time before grouting	24 hours

Approximate Coverage*

per 4 U.S. gals. (15.1 L)

Trowel Type	Coverage
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm), square-notch	100 to 124 sq. ft. (9.29 to 11.5 m ²)
3/8" (10 mm), slant-notch	48 to 60 sq. ft. (4.46 to 5.57 m ²)
1/2" x 15/32" (13 x 12 mm), V-notch	60 to 70 sq. ft. (5.57 to 6.50 m ²)

* Coverages shown are for estimating purposes only. Actual jobsite coverages may vary according to substrate conditions and setting practices.

Packaging

Size
Pail: 4 U.S. gals. (15.1 L)

RELATED DOCUMENTS

- Reference guide: "Surface preparation requirements" for tile and stone installation systems**
- Technical bulletin: "Tiling over gypsum"***

** 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_USA@mapei.com (USA) or sustainability-durabilite@mapei.com (Canada).

WARNING

The test results shown in the TECHNICAL DATA table were obtained in compliance with test methods and curing cycles, if applicable, defined in the industry standards referenced on the Technical Data Sheet. Please note that the use of test procedures or methods other than those indicated in the table could lead to different values and that, in such cases, any liability of our company is excluded.

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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