



Planicrete[®] UA

Universal Latex Additive



FOR PROFESSIONAL USE ONLY

DESCRIPTION

Planicrete UA is a next-generation, water-based, one-component, concentrated liquid latex admixture used to enhance the performance of several MAPEI products, including mortar mixes. Using *Planicrete UA* as part of the designated design mixes will increase product performance in the areas of bond, flexural and tensile strengths in addition to increased durability and enhanced workability.

FEATURES AND BENEFITS

- Increases bond strength
- Improves flexural strength
- Improves workability by eliminating premature evaporation of mix water; ensures better curing and a stronger, more durable repair
- Use as an admixture for horizontal, vertical exterior and interior concrete repairs and concrete toppings. When mixed with cementitious materials, *Planicrete UA* is suitable for properly prepared pre-cast, cast-in-place, post-tensioned and pre-stressed concrete repair.

INDUSTRY STANDARDS AND APPROVALS

<u>LEED Points Contribution</u>	<u>LEED Points</u>
MR Credit 5, Regional Materials*	Up to 2 points
IEQ Credit 4.2, Low-Emitting Materials – Paints & Coatings	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

- Use in mortar mixes for interior or exterior applications.
- Use to enhance applications of *Concrete Renew™* and *Concrete Renew Fine*.
- Use to create decorative surface finishes in a variety of colors when combined with *Keracolor™ U* or *Ultracolor® Plus* in a micro-topping application.
- Use to enhance the performance of mortars in thin finishing applications, such as micro-toppings, refinishing walkways, patios and parking decks. Applications should subsequently be sealed to provide additional durability and maintain cleanliness.
- Use to enhance patch performance, bond and flexural properties of *Mapecem® Quickpatch*.
- Use with products to enhance cosmetic repairs on ramps, beams and columns.

LIMITATIONS

- Concrete substrate and ambient temperatures must be between 45°F and 95°F (7°C and 35°C) before application.
- When adding *Planicrete UA* to *Concrete Renew*, *Concrete Renew Fine*, *Mapecem Quickpatch*, MAPEI's 4 to 1™ mortar mix, and alternate mortar mixes, follow product instructions as indicated in the products' Technical Data Sheets (TDSs).
- When adding to *Keracolor U* or *Ultracolor Plus*, follow the product instructions below. Do not use with *Keracolor S*.



- Use only with the specified MAPEI products and mortar mixes.
- Do not apply over any substrates containing asbestos.

SURFACE PREPARATION

1. Surfaces must be sound, stable, dry and clean. Remove potential bond breakers, self-dissipating cures, oil, dirt, laitance and dust. In some cases, mechanical preparation (beyond high-strength pressure washing) will be required to prepare a surface. If surface has been exposed to a reactive acid, surface must be thoroughly neutralized. In all such cases, clean aggressively and perform a mockup on a suitably sized test area before proceeding.
2. Concrete substrate and ambient temperatures must be between 45°F and 95°F (7°C and 35°C) before application. Temperatures must be maintained within this range for at least 24 hours after the installation of products modified with *Planicrete UA* (wait longer if required in the associated products' TDSs).
3. When using with *Concrete Renew*, *Concrete Renew Fine*, *Keracolor U* or *Ultracolor Plus* over concrete surfaces as a micro-topping, ensure that the surface is properly cleaned and profiled, and then prepare the surface to a saturated surface-dry (SSD) condition. Do not apply material on a wet surface or over standing

water; rather, remove the excess water or wait until surface has reached the correct SSD condition before applying material. Alternatively, prime the properly prepared surface with *Primer L™* at a dilution of 3:1 (water:primer).

4. For alternate substrates or conditions not listed, please contact MAPEI's Technical Services.

MIXING

Choose all appropriate safety equipment before use. Refer to Material Safety Data Sheet (MSDS) for more information.

1. Always premix the *Planicrete UA* concentrate to ensure any material that may have settled during extended storage is well-dispersed. Once the concentrate is homogenous, proceed with portioning for dilution.
2. Always dilute *Planicrete UA* as designated on the table below to create properly proportioned admixtures. Use diluted admixtures in the quantities prescribed in the table below for the products listed. The table states the maximum amount of admixture recommended; if a stiffer mix is required, reduce the quantity of admixture by up to 10%.
3. Follow specific product limitations, mixing and application guidelines as published in its respective Technical Data Sheet.

Mixing Ratio Table

	Bag Size	Dilution Ratio (Water:Planicrete UA)	Amount of Diluted Mix Fluid
<i>Concrete Renew</i>	25 lbs. (11,3 kg)	3:1	Up to 3.9 U.S. qts. (3,69 L)
<i>Concrete Renew Fine</i>	25 lbs. (11,3 kg)	3:1	Up to 3.8 U.S. qts. (3,60 L)
<i>Keracolor U</i>	25 lbs. (11,3 kg)	3:1	Up to 5 U.S. qts. (4,73 L)
<i>Keracolor U</i>	10 lbs. (4,54 kg)	3:1	Up to 2 U.S. qts. (1,89 L)
<i>Ultracolor Plus</i>	25 lbs. (11,3 kg)	3:1	Up to 3.3 U.S. qts. (3,12 L)
<i>Ultracolor Plus</i>	10 lbs. (4,54 kg)	3:1	Up to 1.3 U.S. qts. (1,23 L)
<i>Mapecem Quickpatch</i>	25 lbs. (11,3 kg)	2:1 or 3:1	Up to 2.65 U.S. qts. (2,51 L)
<i>Mapecem Quickpatch</i>	10 lbs. (4,54 kg)	2:1 or 3:1	Up to 1.06 U.S. qts. (1,00 L)
<i>4 to 1</i>	55 lbs. (24,9 kg)	2:1 or 3:1	Up to 3.17 U.S. qts. (3,00 L)
Typical sand/cement mix		2:1 or 3:1	Follow manufacturer's instructions

PRODUCT APPLICATION

When adding *Planicrete UA* to *Concrete Renew*, *Concrete Renew Fine*, *Mapecem Quickpatch*, MAPEI's *4 to 1 mortar mix*, and alternate mortar mixes, follow product instructions as indicated in the products' Technical Data Sheets (TDSs).

1. As a refinishing product used with *Concrete Renew* and *Concrete Renew Fine*: Follow the application instructions of associated TDS. Seal with *Mapefinish™ Wet Look* or an alternate water-based sealer as early as 12 hours after material dries. If using a solvent-based sealer, wait 7 days before application and ensure a mockup is created to confirm desired results.
2. As an interior/exterior decorative micro-topping used with *Keracolor U* or *Ultracolor Plus*:
 - 2.1 Substrates may utilize an SSD approach to "priming," or an application of *Primer L* (3:1) may be utilized to prime the substrate.
 - 2.2 Apply *Keracolor U* or *Ultracolor Plus* in multiple coats of up to 1/8" (3 mm) thickness per coat. Wait for coats to dry between applications. Wait for at least 12 hours after placement to sand the finished product.
 - 2.3 Use *Keracolor U* as an exceptionally smooth unsanded micro-topping.
 - 2.4 Use *Ultracolor Plus* as a sanded micro-topping for application on a profiled or uneven substrate.
 - 2.5 Use in multiple coats and colors if an artistic look is desired.
- 2.6 *Ultracolor Plus* will dry rapidly. Work in small areas to ensure adequate working time.
- 2.7 The micro-topping mixes may be spray-applied to create an alternate decorative look. In addition to these products' 36 standard colors, pigment may be added to the gray or white versions to create an endless color palette.
- 2.8 Seal with *Mapefinish Wet Look* or an alternate water-based sealer as soon as 12 hours after material dries. If a solvent-based sealer is used, allow the micro-topping application to dry for 7 days before application of the sealer.
3. As a patch enhancer with *Mapecem Quickpatch*:
Use with *Mapecem Quickpatch* to increase bond strength, product flexibility and durability. This usage is particularly beneficial when applications over damaged, rough concrete are required before the application of a micro-topping (*Keracolor U* or *Ultracolor Plus*) or resurfacer (*Concrete Renew* or *Concrete Renew Fine*).
4. As a performance enhancer for MAPEI's mortar mix 4 to 1.
5. As a performance enhancer for sand and cement mixes:
Planicrete UA can increase the compressive strengths by 20% to 35%, and flexural strengths from 40% to 100%.

CLEANUP

Clean the mixing equipment with water before the mortar hardens. Hardened material must be mechanically removed

Product Performance Properties

Concrete Renew or Concrete Renew Fine (25 lbs. [11,3 kg]) mixed at 3:1 with 3.7 U.S. qts. (3,50 L) of diluted mix fluid

Laboratory Tests	Results
Compressive strength – ASTM C109	
24 hours	> 1,740 psi (12 MPa)
7 days	> 2,610 psi (18 MPa)
28 days	> 3,625 psi (25 MPa)
Flexural strength – ASTM C348	
24 hours	> 522 psi (3,6 MPa)
7 days	> 986 psi (6,8 MPa)
28 days	> 1,196 psi (8,25 MPa)
Adhesion (tensile strength) – ASTM C1583	
7 days	> 435 psi (3 MPa) over concrete
Taber abrasion* – ASTM D4060	
	< 0,55 g loss

*H-22 200 cycles, 500 g

Product Performance Properties

Ultracolor Plus (25 lbs. [11,3 kg]) mixed at 3:1 with 3 U.S. qts. (2,84 L) of diluted mix fluid

Laboratory Tests	Results
Compressive strength – ASTM C349	
24 hours	> 1,630 psi (11,2 MPa)
7 days	> 3,050 psi (21,0 MPa)
28 days	> 3,785 psi (26,1 MPa)
Flexural strength – ASTM C348	
24 hours	> 453 psi (3,12 MPa)
7 days	> 1,000 psi (6,90 MPa)
28 days	> 1,250 psi (8,62 MPa)
Adhesion (tensile strength) – ASTM C1583	
7 days	> 285 psi (1,97 MPa) over concrete

Keracolor U (25 lbs. [11,3 kg]) mixed at 3:1 with 5 U.S. qts. (4,73 L) of diluted mix fluid

Laboratory Tests	Results
Compressive strength – ASTM C349	
24 hours	> 815 psi (5,62 MPa)
7 days	> 2,900 psi (20 MPa)
28 days	> 3,500 psi (24,1 MPa)
Flexural strength – ASTM C348	
24 hours	> 310 psi (2,14 MPa)
7 days	> 990 psi (6,83 MPa)
28 days	> 1,210 psi (8,34 MPa)
Adhesion (tensile strength) – ASTM C1583	
7 days	> 325 psi (2,24 MPa) over concrete

Mapecem Quickpatch (25 lbs. [11,3 kg]) mixed at 2:1 with 2.75 U.S. qts. (2,60 L) of diluted mix fluid

Laboratory Tests	Results
Compressive strength – ASTM C349	
24 hours	> 2,585 psi (17,8 MPa)
7 days	> 3,425 psi (23,6 MPa)
28 days	> 4,050 psi (27,9 MPa)
Flexural strength – ASTM C348	
24 hours	> 925 psi (6,38 MPa)
7 days	> 1,250 psi (8,62 MPa)
28 days	> 1,700 psi (11,7 MPa)
Adhesion (tensile strength) – ASTM C1583	
7 days	> 400 psi (2,76 MPa) over concrete
Taber abrasion* – ASTM D4060	0,33 g after 28 days

* H-22, 200 cycles, 500 g

Product Performance Properties

4 to 1 mortar (50 lbs. [22,7 kg]) mixed at 3:1 with 3.17 U.S. qts. (3,00 L) of diluted mix fluid

Laboratory Tests	Results
Compressive strength – ASTM C349	
24 hours	> 1,490 psi (10,3 MPa)
7 days	> 3,770 psi (26 MPa)
28 days	> 4,175 psi (28,8 MPa)
Flexural strength – ASTM C348	
24 hours	> 463 psi (3,19 MPa)
7 days	> 970 psi (6,69 MPa)
28 days	> 1,115 psi (7,69 MPa)

Shelf Life and Application Properties – Planicrete UA (before mixing)

Physical state	Liquid
Color	White
VOCs (Rule #1168 of California's SCAQMD)	3 g/L
Solids	> 45%
Shelf life	1 year
Storage conditions	Store between 50°F and 85°F (10°C and 29°C). Protect from freezing.

CSI Division Classifications

Maintenance of Concrete	03 01 00
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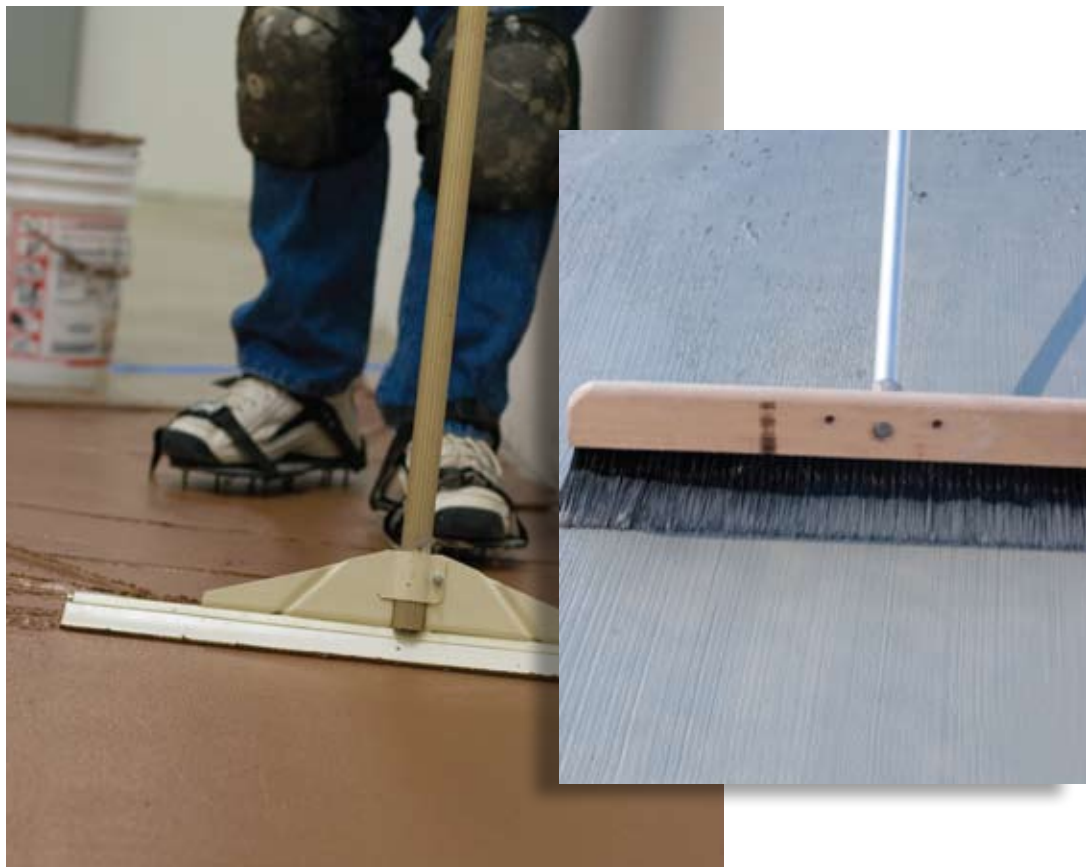
Packaging

Product Code	Size
36268	5 U.S. gals. (18,9 L)
36253	1 U.S. gal. (3,79 L)

Approximate Product Yield

Depends on suitable dilution and the mix quantity required for the product being modified.

Planicrete[®]
UA



Refer to the 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:



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

Edition Date: June 25, 2010
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