

हर टाइल के पीछे MAGIC

PREMIUM ADHESIVE

TECHNICAL DATA SHEET



Superior Bond Strength



High Sag Resistance



No Shrinkage



Extended Open Time



Large Format Tiles & Stones



Low VOC



Available in 20 kg Bag

PRODUCT DESCRIPTION

Premium Adhesive is a high polymer integrated cement composition-based adhesive for fixing large format tiles and natural stone cladding on floors and walls. It comes in a premixed, ready to use form that can be used with a number of substrates. It is water resistant and doesn't allow cracking of tiles.

SUITABLE FOR

Material & Area

- Large format Vitrified tiles.
- Granite, marble and all types of stones.
- Internal & external floor and walls.
- Various mosaic tiles.
- Residential, commercial, industrial.
- Swimming pool and water bodies.

Substrate

- Cement mortar beds
- Cement based plaster/ Concrete / Screed / Terrazzo
- Brick/ Block/ Concrete Masonry
- Tile on tile
- Cement based self leveling screed
- Waterproofing products
- Fibre cement slabs

TECHNICAL DETAILS

Conforms to IS 15477:2019 Type 3 'T'; EN 12004 C2TE

PHYSICAL PROPERTIES @ 70° F (21° C)

Tile laying adhesive mixed with water

| PARAMETERS | RESULTS |
|--------------------------------|-----------------|
| Colour | Grey/White |
| Mixing Ratio (Powder To Water) | 3.5 : 1 |
| Bulk Density | 1.3 - 1.5 gm/cc |
| Mixing Density | 1.7 - 1.9 gm/cc |
| Pot Life | > 2 Hours |
| Open Time | ~ 20 Minutes |
| Adjustability | ~20 Minutes |
| Final Setting Time | 24 Hours |
| Max. Bed Thickness | 15 mm |
| Time To Light Foot Traffic | 16 - 24 Hours |
| Ready For Grouting | 24 Hours |
| Ready For Use | 14 Days |

PERFORMANCE PROPERTIES

Tile laying adhesive mixed with water

IS 15477:2019

| PARAMETERS | REQUIREMENTS | RESULTS | TEST METHODS |
|---|-----------------------|-----------------------------|-------------------------------------|
| Tensile Adhesion (Dry Condition 28 Days) | 1.5 N/mm ² | 1.6-1.7 N/mm ² | IS 15477:2019 Annexure A Clause 5.1 |
| Tensile Adhesion (Wet Condition 28 Days) | 1 N/mm ² | 1.15-1.25 N/mm ² | IS 15477:2019 Annexure A Clause 5.1 |
| Shear Adhesion (Dry Condition 28 Days) | 1.5 N/mm ² | 1.55-1.65 N/mm ² | IS 15477:2019 Annexure B Clause 5.2 |
| Shear Adhesion (Heat Aging Condition 28 Days) | 1 N/mm ² | 1.15-1.25 N/mm ² | IS 15477:2019 Annexure B Clause 5.2 |
| Shear Adhesion (Wet Condition 28 Days) | 1 N/mm ² | 1.15-1.25 N/mm ² | IS 15477:2019 Annexure B Clause 5.2 |
| Slip Resistance | <0.5 mm | 0.2-0.3 mm | IS 15477:2019 Annexure E Clause 5.5 |

Premium adhesive mortar conforms to IS 15477:2019 Type 3T

EN 12004

| PARAMETERS | REQUIREMENTS | RESULTS | TEST METHODS |
|---|------------------------|----------------------------|--------------------|
| E- Extended Open Time | ≥0.5 N/mm ² | 0.85-1 N/mm ² | EN 1346 |
| T-slip Resistance | ≤0.5 mm | 0.3-0.5 mm | EN 1308 |
| Tensile Adhesion Strength (C2) | ≥1 N/mm ² | 1.3-1.5 N/mm ² | EN 1348 Clause 8.2 |
| Tensile Adhesion Strength (After Water Immersion) | ≥1 N/mm ² | 1.3-1.5 N/mm ² | EN 1348 Clause 8.3 |
| Tensile Adhesion Strength (Heat Ageing) | ≥1 N/mm ² | 1.1-1.2 N/mm ² | EN 1348 Clause 8.4 |
| Tensile Adhesion Strength (Freeze & Thaw) | ≥1 N/mm ² | 1.3-1.55 N/mm ² | EN 1348 Clause 8.5 |

Premium adhesive mortar conforms to EN 12004 C2 TE/ISO 13007

ANSI A118

| PARAMETERS | REQUIREMENTS | RESULTS | TEST METHODS |
|---|-------------------------|-----------------------------|------------------------------|
| Open Time (20 Minutes At 28 Days) | ≥ 0.5 N/mm ² | 0.7-0.8 N/mm ² | ANSI A118.4ET Clause – 5.3 |
| Sag Resistance | ≤ 0.5 mm | 0.2-0.3 mm | ANSI A118.4ET- Clause 6.0 |
| Glazed Wall Tile | | | |
| Shear Strength (7 Days) | >2.07 N/mm ² | 2.40-2.55 N/mm ² | ANSI A118.4ET – Clause 7.1.2 |
| Shear Strength (7 Days Water Immersion) | >1.38 N/mm ² | 1.60-1.75 N/mm ² | ANSI A118.4ET- Clause 7.1.3 |
| Porcelain Mosaic Tile | | | |
| Shear Strength (1 Day) | >0.5 N/mm ² | 0.85-1.25 N/mm ² | ANSI A118.4ET – Clause 7.2.2 |
| Shear Strength (7 Days) | >1.38 N/mm ² | 1.9-2.1 N/mm ² | ANSI A118.4ET – Clause 7.2.3 |
| Shear Strength (7 Days Water Immersion) | >1.03 N/mm ² | 1.5-1.7 N/mm ² | ANSI A118.4ET – Clause 7.2.4 |
| Shear Strength (28 Days) | >1.38 N/mm ² | 2-2.2 N/mm ² | ANSI A118.4ET – Clause 7.2.5 |
| Shear Strength (28 Days Freeze- Thaw Cycling) | >1.2 N/mm ² | 1.6-1.8 N/mm ² | ANSI A118.4ET – Clause 7.2.5 |
| Shear Strength (12 Weeks) | >1.38 N/mm ² | 2-2.2 N/mm ² | ANSI A118.4ET – Clause 7.2.7 |
| Quarry Tile | | | |
| Shear Strength (28 Days) | >1.03 N/mm ² | 1.6-1.8 N/mm ² | ANSI A118.4ET – Clause 7.3.2 |
| Shear Strength (28 Days Freeze- Thaw Cycling) | >0.69 N/mm ² | 1.4-1.6 N/mm ² | ANSI A118.4ET – Clause 7.3.3 |

Premium adhesive mortar conforms to ANSI A118.4ET

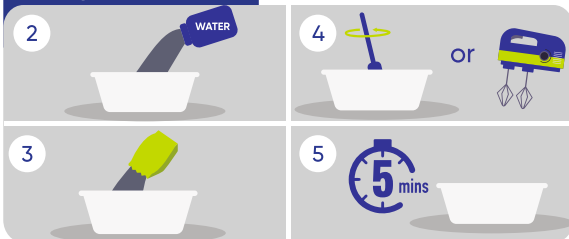
INSTALLATION

Surface Preparation



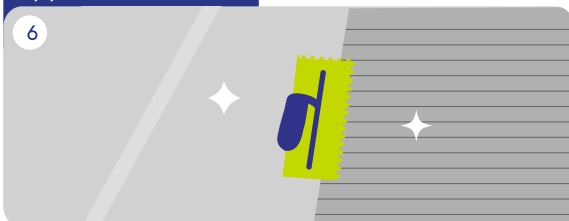
- All surfaces must conform to the dimensional stability requirements outlined in IS 1443-2018.
- They should be level, properly cured, undamaged, compact, rigid, resistant, dry, free from any debonding agents, and protected against damp rising.
- Pre-wet or dampen highly absorbent concrete surface with good quality fresh water.

Mixing



- Use 5-6 litres of potable water for every 20 kg of adhesive.
- Pour the minimum recommended amount of potable water into a clean mixing container.
- Gradually add dry mix product to the water (not vice versa) while continuously mixing it with a low-speed electric single-paddle (spiral) mixer for mixing at a speed of <math><500\text{ rpm}</math>.
- Mix thoroughly for 2-3 minutes or until you achieve a uniformly colored, smooth mixture. Add additional water, if necessary, but do not exceed the maximum specified amount.
- Allow the mixed product to 'mature' for 4-5 minutes without stirring.
- Remix for 15 seconds just before using.
- Avoid over-mixing to minimize air entrainment

Application



- The adhesive needs to be applied with a flat side of the trowel using a scrapping motion.
- Additional mortar should be then applied with the notched edge of the trowel.
- For large size tiles with sides > 2 feet, apply additional adhesive to the back of the tile surface with the flat side of the trowel.
- Occasionally check to inspect tiles are properly stuck. If the adhesive seems to be non-sticky, remove the existing and replace with fresh adhesive. Use a rubber mallet to tap the tile and ensure it is fully bedded in the adhesive.

To create elastic expansion joints, follow these guidelines:

- For external applications, create 5 mm joints at every 10 m².
- For internal applications, create 3 mm joints at every 25 m².
- In long, narrow applications, create 3 mm joints after every 8 meters.

Always respect all structural, fractionizing, and perimeter joints present on the surfaces.

Cleaning



- Clean any excess adhesive from the tile surfaces and grout lines immediately with a damp sponge or cloth.

Grouting

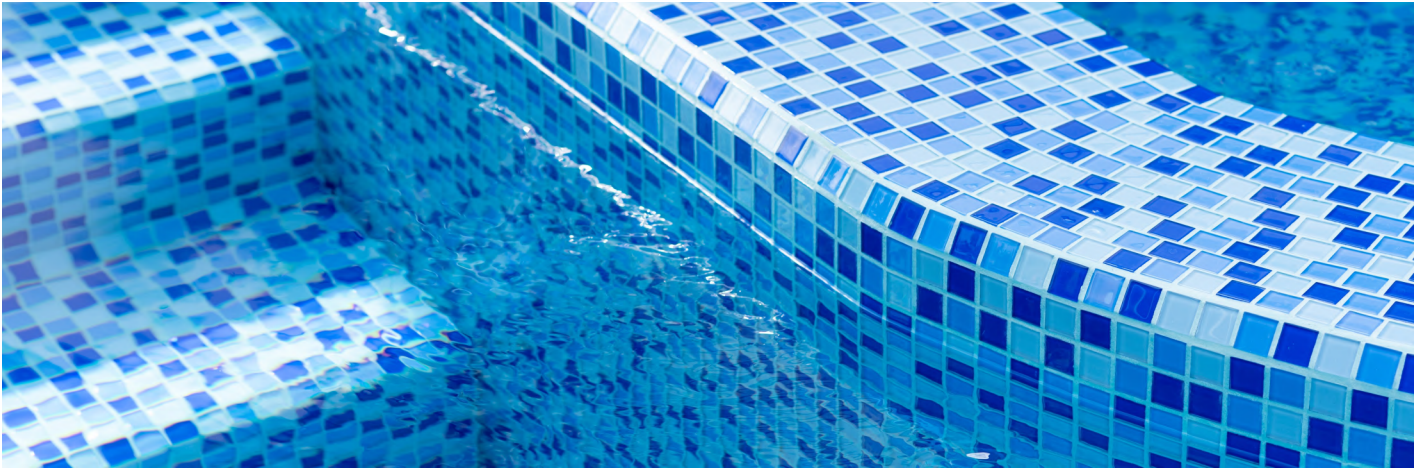


- Grouting should be carried out after 24 hours of tiling. It is advisable to use the appropriate grouting material from Magicrete range of cementitious or epoxy grouts.

COVERAGE

- A coverage of 55-60 Sq. Ft. per bag of 20 Kg is received when used with a bed thickness of 3mm (using 6mm x 6mm square notched trowel).

Note: Coverage is based on smoothness and evenness of the substrate, and the thickness of mortar used.



SHELF LIFE

Factory packed bags of Tile Laying Adhesive Premium carries a shelf life of 12 months, if stored in cool & dry place. However, as temperature, humidity, water addition & other parameters vary from site to site.

LIMITATIONS

Adhesives and grouts for tiles are not replacements for waterproof membranes. When a waterproof membrane is required, use Magicrete waterproofing products by Magicrete or any other waterproofing product available in the market.

SAFETY PRECAUTIONS

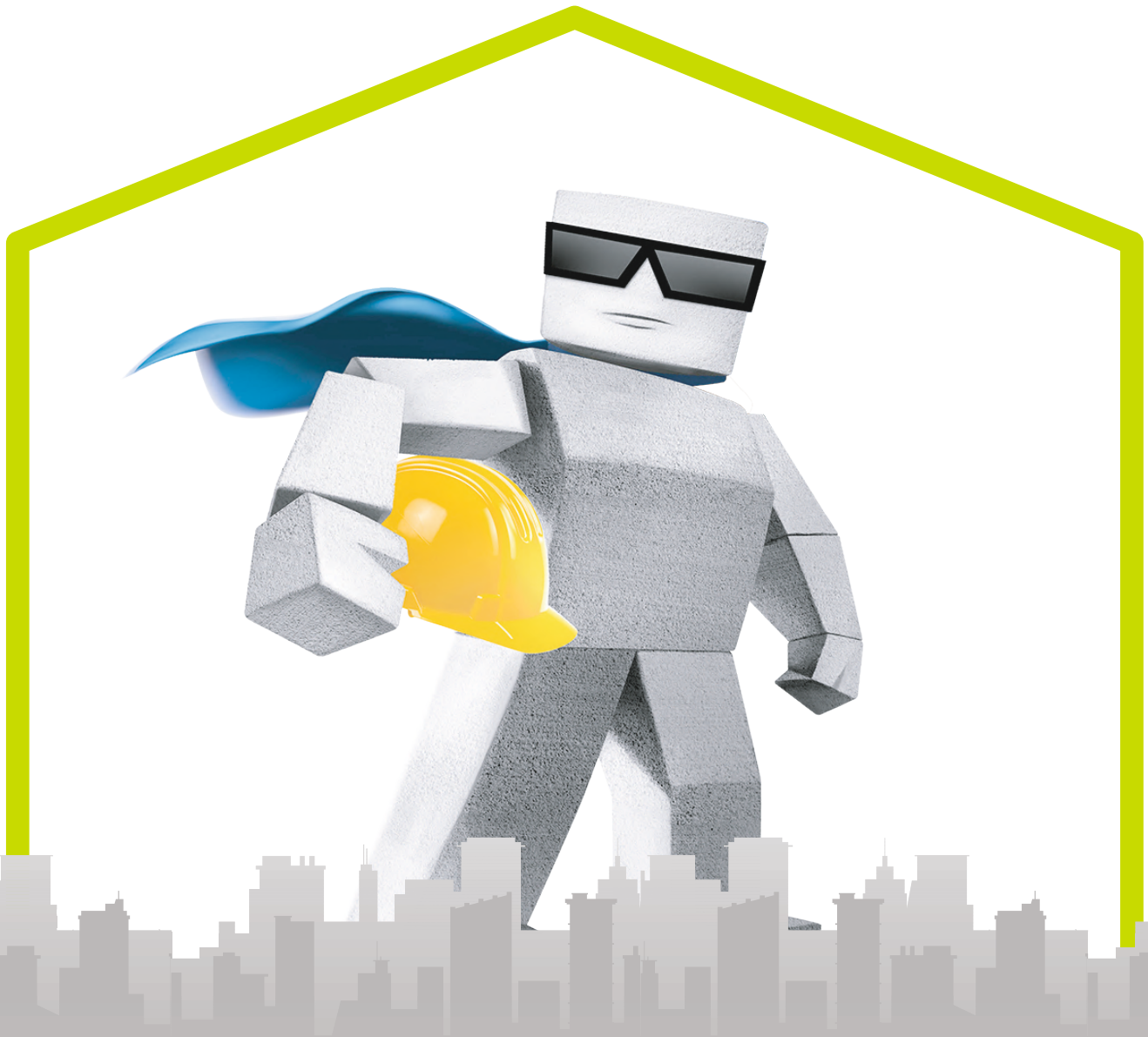
- Keep out of reach of children.
- Wear suitable protective clothing, gloves, and eye/face protection.
- After contact with the skin, wash immediately with plenty of clean water.
- In case of eye contact, rinse immediately with plenty of clean water and seek medical advice.

IMPORTANT NOTES

- Always add powder to water.
- Do not add excess water than recommended.
- Do not add extra cement or sand to tile adhesive, as it can disturb the Magicrete product's intended formulation and compromise its performance.
- Do not use on wet screed, surface must be fully cured (28 days).
- Do not use the adhesive to correct surface irregularities >12 mm. May go up to 15 mm in limited extent.
- Applicator must evaluate the use of an additional mechanical fastening system for extra security in case of heavy stone/large tiles for more than 3m height (such as steel hooks fastened to the substrate).
- Protect from direct rainfall/ foot traffic for at least 24 hours.
- Leave gap between the tiles with the help of spacers & fill gaps with Magicrete tile grout.
- It is mandatory to use appropriate size notched trowel to achieve required thickness of adhesive
- It is advisable to use Magicrete Ultrabond on the back surface of tile/stone when either substrate or tile/stoned to be applied is highly absorbent.
- Do not use on deformable substrate or substrates which are subject to vibration.

magicrete®

magic behind happy homes



Magicrete Building Solutions Pvt. Ltd.

(ISO 9001 :2015, ISO 14001 :2015 & ISO 45001 :2018 Certified co.)

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