magicrete®
magic behind happy homes

EN 12004
C2 TE

IS 15477:2019
Type 2 'T'



हर टाइल के पीछे MAGIC

ELITE
ADHESIVE

TECHNICAL DATA SHEET

- High Bond Strength
- Polymer Modified
- No Shrinkage Cracks
- For Dry & Wet areas
- No Sag
- Low VOC

GREY WHITE



Available in 20 kg Bag

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ELITE
ADHESIVE

PRODUCT DESCRIPTION

Elite Adhesive is a polymer integrated cement composition-based adhesive for vitrified tiles & natural stones for internal & external applications. 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

- Vitrified and Glass Mosaic tiles (medium format), stones
- Internal & External application.
- Tiles with porosity ≤ 3%.
- Horizontal & Vertical Surfaces

Substrate

- Cement mortar beds
- Cement based plaster / Concrete/ Screed / Terrazzo / Brick / Block / Concrete Masonry
- Tile on Tile
- Cement based self leveling screed

TECHNICAL DETAILS

Conforms to IS 15477:2019 Type 2 '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	~ 30 Minutes
Adjustability	~30 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

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PERFORMANCE PROPERTIES

Tile laying adhesive mixed with water

IS 15477:2019

PARAMETERS	REQUIREMENTS	RESULTS	TEST METHODS
Tensile Adhesion (Dry Condition 28 Days)	1 N/mm^2	1.25-1.35 N/mm^2	IS 15477:2019 Annexure A Clause 5.1
Tensile Adhesion (Wet Condition 28 Days)	1 N/mm^2	1.25-1.35 N/mm^2	IS 15477:2019 Annexure B Clause 5.2
Shear Adhesion (Dry Condition 28 Days)	1.25 N/mm^2	1.4-1.5 N/mm^2	IS 15477:2019 Annexure B Clause 5.2
Shear Adhesion (Heat Aging Condition 28 Days)	1 N/mm^2	1.05-1.15 N/mm^2	IS 15477:2019 Annexure B Clause 5.2
Shear Adhesion (Wet Condition 28 Days)	1 N/mm^2	1.1-1.2 N/mm^2	IS 15477:2019 Annexure B Clause 5.2
Slip Resistance	<0.5 mm	0.3-0.4 mm	IS 15477:2019 Annexure E Clause 5.5

Elite adhesive mortar conforms to IS 15477:2019 Type 2T

EN 12004

PARAMETERS	REQUIREMENTS	RESULT	TEST METHODS
E – Extended Open Time	≥ 0.5 N/mm^2 after not less than 30 min	0.65-0.8 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	1.25-1.35 N/mm^2	EN 1348 Clause 8.2
Tensile Adhesion Strength (After Water Immersion)	≥ 1 N/mm^2	1.15-1.25 N/mm^2	EN 1348 Clause 8.3
Tensile Adhesion Strength (Heat Ageing)	≥ 1 N/mm^2	1.0-1.1 N/mm^2	EN 1348 Clause 8.4
Tensile Adhesion Strength (Freeze & Thaw)	≥ 1 N/mm^2	1.2-1.3 N/mm^2	EN 1348 Clause 8.5

Elite adhesive mortar conforms to EN 12004 C2TE/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 A118.4T - Clause – 5.3
Sag Resistance	≤0.02 Inches	0.25-0.35 mm	ANSI A118.4T - Clause 6.0
Glazed Wall Tile			
Shear Strength (7 Days)	>2.07 N/mm^2	2.2-2.3 N/mm^2	ANSI A118.4T - Clause – 7.1.2
Shear Strength (7 Days Water Immersion)	>1.38 N/mm^2	1.52-1.62 N/mm^2	ANSI A118.4T - Clause 7.1.3
Porcelain Mosaic Tile			
Shear Strength (1 Day)	>0.34 N/mm^2	0.5-0.55 N/mm^2	ANSI A118.4T - Clause – 7.2.2
Shear Strength (7 Day)	>1.03 N/mm^2	1.4-1.6 N/mm^2	ANSI A118.4T - Clause 7.2.3
Shear Strength (7 Days Water Immersion)	>0.69N/mm^2	0.9-1.1 N/mm^2	ANSI A118.4T - Clause 7.2.4
Shear Strength (28 Days Normal Condition)	>1.03 N/mm^2	1.4-1.5 N/mm^2	ANSI A118.4T - Clause 7.2.5
Shear Strength (28 Days Freeze Thaw Cycling)	>1.2 N/mm^2	1.55-1.75 N/mm^2	ANSI A118.4T - Clause 7.2.5
Shear Strength (12 Weeks)	>1.03 N/mm^2	1.75-1.95 N/mm^2	ANSI A118.4T - Clause 7.2.7
Quarry Tile			
Shear Strength (28 Days)	>1.03 N/mm^2	1.7-1.9 N/mm^2	ANSI A118.4T - Clause – 7.3.2
Shear Strength (28 Days Freeze Thaw Cycling)	>0.69 N/mm^2	1.4-1.6 N/mm^2	ANSI A118.4T - Clause 7.3.3

Elite adhesive mortar conforms to ANSI A118.4T

Specifications may be modified without prior notice. The displayed results are representative but are based on the testing procedures employed. Real-world performance will be influenced by the installation techniques and on-site conditions.

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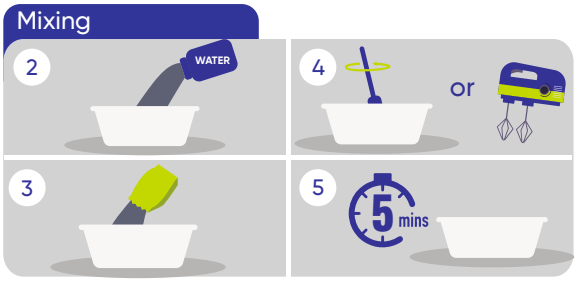
INSTALLATION

Surface Preparation



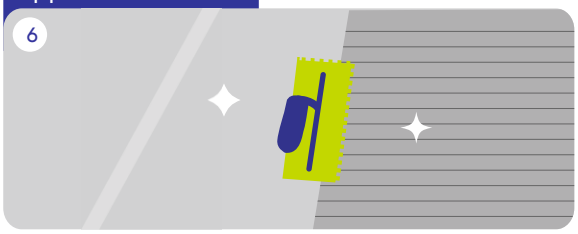
- All surfaces must conform to the dimensional stability requirements outlined in IS 1443-2018.
- They should be level, properly cured, undamaged, compact, rigid, resistant, dry, free from any debonding agents, and protected against damp rising.
- Pre-wet or dampen highly absorbent concrete surface with 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 <500 rpm.
- 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 m^2.
- For internal applications, create 3 mm joints at every 25 m^2.
- In long, narrow applications, create 3 mm joints after every 8 meters.

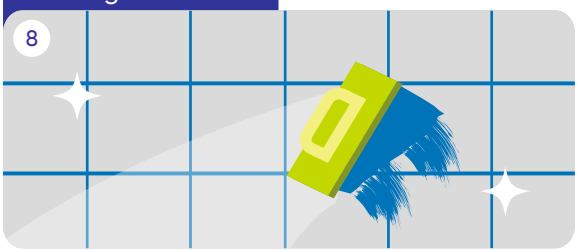
Always respect all structural, fractionizing, and perimeter joints present on the surfaces.

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 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.

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ELITE ADHESIVE



SHELF LIFE

Factory packed bags of Tile Laying Adhesive Elite 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.

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Magicrete Building Solutions Pvt. Ltd.

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

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