



## TECHNICAL DATA SHEET

# DIAMOND

(C2TE TYPE 3)



Cementitious, polymer fiber modified tile adhesive with no vertical slip with extended performance. Suitable for fixing ceramic, vitrified tiles and Natural stone for floor & walls in internal & external application.

### CHARACTERISTICS

- C2TE compliant with EN12004 standard
- Type 3 T as per IS 15477:2019
- Perfect adherence
- Allows installation of tiles from top towards the bottom
- No Vertical Slip
- Extended Open Time

- Coverage: Approx 50-60 sq. ft. per 20 kg Bag @3mm thickness when using thin trowel.
- Approx 25-30 sq. ft. per 20 kg Bag @6mm thickness when using thin trowel.
- Can be used for the tile on tile application



Power  
Polymers



Vitrified  
Tiles



Humid  
Areas



Frost  
Resistant



Tile On  
Tile



Natural  
Stone

### SCOPE OF USE

- **MAPISA DIAMOND** is a tile adhesive certified as C2TE (as per EN 12004) & Type 2 T (as per IS 15477:2019) designed for vitrified tiles and ceramic tiles (glazed, terracotta) on floor and wall on cementitious renders, cementitious screeds and concrete. Indoor & Outdoor use:
- On horizontal and vertical surfaces.
- On Cement and cement-lime plaster, cement screeds, cement ground coats and concrete

### SUBSTRATE PREPARATION

MAPISA369 Adhesive can be applied to smooth, compact surfaces that are devoid of any substances that may hinder adhesion, such as grease, bitumen, oil, paint, and dust. Concrete should be at least one month old, while cement screeds and plaster must be completely cured. For anhydrite substrates, ensure residual moisture is below 0.5%, and for gypsum substrates, it should be below 1%. These surfaces should be mechanically roughened and cleaned of dust. Aerated concrete must also be free of dust. It's essential that substrates are not wet. Any dirt, loose layers, or paint coatings must be removed mechanically. Absorbent substrates should be dampened, with any excess water eliminated before proceeding with the application.

### APPLICATION



Pour MAPISA DIAMOND TILE ADHESIVE into a container with the precisely measured amount of clean water and stir with a drill and mixer until a homogeneous mass without lumps is obtained. Leave for 5 min. and then stir again. Apply the mortar with a suitable notched trowel. Use the proper sized notch trowel to ensure full bedding in the tile. Do not soak tiles in the water. The back buttering method shall be used for larger tiles and for outdoor applications (ie. additionally a thin layer of the mortar should be spread on the tile's back side, contact area > 90%). Place the tiles only during the open time of the adhesive. Fresh excess mortar can be removed with water, hardened material can only be removed mechanically. Grouting on the wall can be done after 8 hrs in vitrified tiles and after 24 hrs in porous tiles using MAPISA grouts. Floors are set to light traffic after approx. 24 hrs. Expansion joints, joints at the corners of walls and floor and around sanitary equipment shall be filled with suitable sealants or shall be treated with appropriate treatment

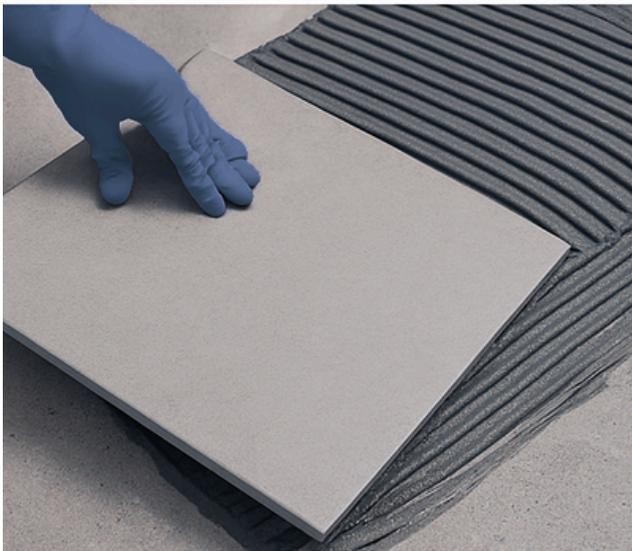
# MAPISA



**1. Mixing**



**2. Adhesive Application**



**3. Tile Fixing**



**4. Adjustment Time**

## **GENERAL DATA**

- Appearance: Grey or white powder
- Packaging: 20 kg and 40 kg (for Project Sale Only)
- Shelf Life: 12 months in original packaging
- Storage: Store in a dry, cool area away from direct sunlight and moisture
- Health & Safety: Cement-based – use gloves, mask, and goggles. Take Preventive measures.

## TECHNICAL DATA

### PERFORMANCE PROPERTIES AS PER ISO 13007 / EN 12004

TEST PROPERTIES	STANDARDS	MAPISA RESULTS
Open Time	30 min	35- 45 min
Adjustability	35 min	40 min
Pot Life	120 min	120 min
Tensile adhesion at dry condition, after 28 days	$\geq 1.40 \text{ N/mm}^2$	$\geq 1.50 \text{ N/mm}^2$
Shear Adhesion at Dry Condition	$\geq 1.40 \text{ N/mm}^2$	$\geq 1.50 \text{ N/mm}^2$
Slip resistance	$\leq 0.5 \text{ mm}$	0.31 mm

### PERFORMANCE PROPERTIES AS PER IS 15477: 2019

TEST PROPERTIES	STANDARDS	MAPISA RESULTS
<b>Tensile Adhesion</b>		
Dry Conditions	Minimum $1.40 \text{ N/mm}^2$	$1.40 \text{ N/mm}^2$
Wet Conditions	Minimum $1.40 \text{ N/mm}^2$	$1.40\text{-}1.50 \text{ N/mm}^2$
<b>Shear Adhesion</b>		
Dry Conditions	Minimum $1.40 \text{ N/mm}^2$	$1.40\text{-}1.50 \text{ N/mm}^2$
Heat Ageing	Minimum $1.40 \text{ N/mm}^2$	$1.40 \text{ N/mm}^2$
Wet Conditions	Minimum $1.40 \text{ N/mm}^2$	$1.40 \text{ N/mm}^2$
Slip resistance	$\leq 0.5 \text{ mm}$	$0.35\text{-}0.45 \text{ mm}$

## **MOST IMPORTANT INSTRUCTION TO FIX GRANITE, HARD STONE, ELEVATION STONE ETC...**

**For fixing Tiles Granite and Hard stone & other consider strictly below steps:**

1. Surface preparation: Scrub or roughen the back side with a grinder to enhance bonding.
2. Primer application: Use a suitable primer like Mapisa 369 TKD (Back Tile Primer) or equivalent to improve adhesion.
3. Mechanical fixation: For installations above 10 feet in height (inside or outside), use fasteners to ensure stability and safety.
4. Ensure the substrate is clean, dry, and stable.
5. Choose the right adhesive and follow manufacturer instructions.
6. Consider consulting a professional for complex or high-risk installations.
7. The substrate must be level, cured, undamaged, compact, rigid, resistant, dry and free from any debonding agents and from damp rising. All surfaces must be plumb and true to within 6 mm in 10 ft (3m). Dry, dusty surfaces should be dampened with water & excess water should be swept off. New concrete slabs shall be damp cured and 28 days old before application which will reduce the shrinkage from tile fixing surface. Expansion joints to be provided & filled with suitable sealant. Do not cover expansion joints with thin set tile adhesive/ tile.
8. Add 2.5 - 3 parts of powder to 1 part of water or 5 - 7 litre water for 20 Kg powder in a clean mixing vessel. Adjust the water as per desired consistency. Mix with a suitable mechanical stirrer or slow speed drills (50 - 100 rpm) until a lump free homogeneous paste is obtained. Always mix required quantity, which can be consumed within pot life. Leave mixture for 5 minutes before use. No further water should be added. Apply adhesive to the substrate with the flat side of the Trowel.
9. Comb on additional adhesive with the notched side. Use the proper sized notched trowel to ensure full bedding of the tile. Tiles must be fixed within 30 minutes of adhesive being applied, depending on the porosity of the surface and atmospheric conditions.



**10.** Check the adhesive ribs periodically and if a skin has formed, remove the dried adhesive and apply fresh adhesive. Press the tiles firmly into position with a slight twisting action, checking periodically that good contact is maintained with the back of each tile and beat in using rubber mallet to imbed tile and adjust level. Leave no voids behind tiles. For large size tiles or irregular surfaces, adhesive can additionally be buttered on the backs of the tiles to ensure full adhesive contact. Use suitable support along with adhesive for fixing tiles on vertical surfaces.

**11.** For highly absorbent natural stones which may form a wet patch when adhesive is used, it is recommended to use suitable Impregnating sealer on all sides. Please refer Technical Data Sheets of product intended for use for specific instructions of use For highly absorbent surfaces like drywalls or consult with our technical team. Leave adequate joints between individual wall and floor tiles using the spacers. The joint width shall be as per the recommendation of architect / engineer.



**12.** Clean off surplus adhesive from the tile face and between joints. Clean tools and tile work with water while adhesive is fresh.