

# Dalmia Magic Tile Fixing Adhesive

## TECHNICAL DATA SHEET



### Thinbed Tile Fixing Adhesive for Fixing Wall tiles and Floor tiles

#### Description

Dalmia Magic INNOFIX is a versatile adhesive material for very thin bed applications. It is polymer modified cement based high performance, high strength, and high quality tile adhesive. Suitable for both internal and external, thin bed applications. It is to be used as grey cement based non-shrink and self-curing tile adhesive for wall and floor. This adhesive is specially designed to provide stronger, much more durable bonding between the tiles with optimum adhesive strength.

#### Characteristics / Advantages

- Fast Setting and Quick Strength development.
- Excellent adhesion.
- Better bond than conventional Cement based mortar.
- Higher Coverage.
- Excellent workability and Easy to Apply.
- Excellent water retention properties.
- Longer Open Time.
- No Shrinkage cracks at joints.
- Self-curing – No curing required post application.
- Save on cost and time to conventional mortar and process of lengthy site mixing.

#### Technical Specification

Technical parameters comply with IS 15477 and EN 1348

#### Area of Application

For preparing very thin bed for floor and wall tiles use

#### Surface Preparation

- The surface to be structurally stable and sound, clean and free from dirt, oil, grease, loose particles and other contaminant.
- Pre-wetting of substrate is essential with maximum saturation of water but saturated surface dry (S.S.D.) condition.

#### Mortar Mixing

Dalmia Magic INNOFIX requires 35-40 % of water by weight of material.

Water: Powder = 35-40 to 100 by weight (10.5 to 12 litres water per 30 kg bag). Mixing Time: 3-5 minutes (minimum). Mixing to the measured quantity of water using mechanical stirring for 5 minutes to ensure a consistency free of lumps.

#### Application

Dalmia Magic INNOFIX must be mechanically mixed using a forced action mixer or in a clean container using a drill and mixing paddle (< 500 rpm). A normal concrete mixer is not suitable. Mix thoroughly with clean water for a minimum of 3 minutes. Leave material to stand in container until the majority of bubbles have dispersed (minimum 5 minutes). Then re-mix the material for 15 seconds - the product is now ready for use.

- If the substrate is very porous, if the temperature is high and/or the relative humidity low, it is advisable to dampen the surface. Do not leave any standing water.
- If necessary the substrate must be levelled prior to application. If the level is still not good enough, suitable levelling mortar must be used.

Characteristics	Specifications Confirming Standards
Base	Polymer modified Cementitious Tile Adhesive
Appearance/Colour	Grey powder
Density	1050 to 1100 gm/Ltr
Water/Powder Ratio	35-40:100
Compressive Strength (BS EN 1015-11: 1999)	≥ 12.0 N/mm <sup>2</sup>
Shear Adhesion Strength (IS 15477:2019 Type-1 Adhesive)	
• Dry Condition @ 28 days (min 1.00 N/mm <sup>2</sup> )	1.38 N/mm <sup>2</sup>
• Wet Condition @ 7 days Humidity Cabinet+28 Days in Water (min 1.00 N/mm <sup>2</sup> )	1.12 N/mm <sup>2</sup>
• Heat Ageing condition @ 14 Days Humidity Cabinet + 14 Days Oven (min 1.00 N/mm <sup>2</sup> )	1.11 N/mm <sup>2</sup>
Tensile Adhesion Strength (IS 15477:2019 Type-1 Adhesive)	
• Dry Condition 28 Days (min 0.5 N/mm <sup>2</sup> )	> 0.5 N/mm <sup>2</sup>
• Wet Condition 28 Days (min 0.5 N/mm <sup>2</sup> )	> 0.5 N/mm <sup>2</sup>
Usage time post application (Time to Traffic)	After 24 Hrs.
Slip Resistance (EN 1308)	≤ 0.5 mm
Pot Life	3 Hrs.
Open Time (IS 15477:2019 Type-1 Adhesive)	20 min @ 27±2 °C and 65±5 RH
Adjustable Time (IS 15477:2019 Type-1 Adhesive)	15 min @ 27±2 °C and 65±5 RH
Shelf Life	6 months from the date of production
Consumption	2.70 - 3.10 kg/m <sup>2</sup> for 3 mm average thickness
Layer thickness	3 mm average thickness
Storage Condition	Store properly in original unopened, sealed and undamaged packaging in dry condition

- Mix thoroughly with clean water as per above mixing guideline.
- Dalmia Magic INNOFIX is applied using a notched trowel onto the substrate. Choose the trowel that will give the right coverage to the back of the tile.
- For ceramic tiles, use a notched trowel to obtain a minimum 3mm average thickness. Place tiles within 10 minutes of mixing and press firmly with twisting movement. Uneven surface may require more than 3mm thickness. Use damp cloth to remove excess paste from the tile surface.
- It is recommended to fix the tiles within 30 minutes of spreading of Dalmia Magic INNOFIX to achieve the adequate bonding as per the Technical data provided.
- Any tile fixing after 30 minutes will lead to improper adhesion and may result in de-bonding of tiles.
- For vertical area applications, tiling should start from bottom to top.
- Do not disturb tiles setting for first 24 hours.
- Allow a minimum of 24 hours for the subsequent usage of the tile fixed areas.
- Do not tile if temperatures are likely to drop to below 5°C or exceed 50°C. For temperatures below 20°C allow the adhesive to cure for an extended period of time.
- Pot life, open time and adjusting time depends on the surface absorption, wind factor, temperature, humidity condition site. The technical data provided in this technical data sheet is as per our internal lab testing and may vary as per the actual method of application at sites.
- Clean all tools and application equipment with water immediately after use. Hardened / cured material can only be removed mechanically.

#### Coverage Estimate

105 to 120 Sq.ft/30 Kg (6mm x 6mm) square notched trowel for average bed of 3mm, depending on the quality of the applied substrate, based on application and weather condition.

#### Storage and Shelf Life

Should be stored in a dry place and protected against moisture. We recommend that the storage time should not exceed 6 months from the date of production. Storage beyond the date specified does not necessarily mean that the material is unusable, but the user should perform a quality check on the properties necessary for the intended application.

#### Packaging

Available in 30 Kg bags.

#### Limitation

Cementitious substrates must be at least 28 days old. Do not exceed the recommended water dosage. Apply only to sound, prepared substrates. Do not exceed the maximum layer thickness. Protect freshly applied material from freezing and rain etc.

Not suitable for tiling over flexible substrates, such as fibrous cement sheeting, plasterboard and timber. Not suitable for tiling directly onto timber, plywood, glass. Not suitable for tiling directly on to metals or plastic substrates. Not suitable for tiling directly onto polyurethane membranes. Not suitable for moisture sensitive tiles or stone. Do not mix or apply adhesives in temperatures below 5°C and above 50°C and under extreme hot and windy conditions.

#### Precaution

Although Dalmia Magic INNOFIX does not contain any toxic material, it is advisable to wear suitable protective clothing, gloves and eyes/face protection. In case of contact with skin and eyes, please rinse immediately with plenty of clean water and seek medical advice if required. Keep the product out of reach of children.

#### Additional Information

The information supplied in the data sheet is based on the outcome of extensive in-house research and development. We reserve the right to update this information from time to time without prior notice. We guarantee the consistent high quality of our product, however since we have no control over site conditions or the execution of the work at site, we accept no liability for any loss or damage which may arise as a result thereof.

