

DIAMOND STAR *Plus*

High performance, polymer modified adhesive with superior bond strength

DESCRIPTION

Grey cement based, polymer modified, high performance adhesive with superior bond strength and extended open time with reduced vertical slip for fixing various types of tile & stone (use ARDEX ENDURA UNDER TILE & STONE PRIMER coating for moisture sensitive stones) on wall / floor in interior / exterior situations. It is water resistant and suitable for tiling in submerged conditions.

STANDARDS

- Complies with the requirements of EN 12004: 2017 and is cementitious adhesive (C) with improved (2) slip resistant (T) and extended open time (E) of Class C2TE
- Complies with requirements of IS 15477: 2004 Type 2

USES

DIAMOND STAR^{Plus} is used for fixing ceramic, vitrified & fully vitrified tiles, glass mosaic, porcelain, terrazzo, natural stone and engineered stone on rigid surfaces like cement screeds, cement or gypsum render/plaster substrates and anhydrite screeds (highly absorbent surfaces must be dampened with water or primed with ARDEX ENDURA ADMIX AD1).

Do not use on walls & floors subjected to vibration (wood, fibre-board, plaster board, metal surfaces, etc.,)

FEATURES

- Extended open time
- Reduced slip
- High initial grab
- Highly thixotropic with easy application & good workability
- Superior bond strength
- Water resistant

PHYSICAL PROPERTIES

DIAMOND STAR ^{Plus}	@ 27± 2°C
Colour	Grey
Mixed Density	1.65 - 1.75 g/cc
Bed Thickness	upto15mm
Walls	Use 6 mm X 6 mm square notch trowel
Floors	Use 12 mm X 12 mm square notch trowel
Mixing Ratio	1 p.b.w. Water to approx. 5 to 4 p.b.w. Adhesive depending on consistency (p.b.w = Parts by weight)
Open Time	30 Minutes
Pot Life	3 hours
Setting Time	24 hours

Shear Adhesion

IS 15477:2004 Type 2

1 Day Air	5.50 kN
14 Days Air	14.00 kN
Temperature Resistance	-30°C to 150°C
VOC Content	1.46 g/L

COVERAGE ESTIMATES

Pack size	Coverage
20 kg & 50 kg	Approx. 3.0 kg/m ² using a 6mm x 6mm square notch trowel

Note: Coverage will depend on the nature and flatness of the surface and the method of application. For good coverage, it is vital that all surfaces are smooth, plumb, level and free from defects and undulations.

APPLICATION INSTRUCTIONS

Substrate Preparation

Before starting any work ensure that the base is:

- Sufficiently flat to permit the specified flatness of finished tiling, bearing in mind the permissible thickness of the adhesive.
- Suitable for tiling in the service conditions to which it will be exposed.
- Surfaces to be tiled must be dry, clean and free from loose material and contamination.

SITE WORK INSTRUCTIONS

SURFACE CONSIDERATIONS

New Cement Sand rendering/Brick/Block Wall

Before commencing tiling, allow plastered surface to air dry for at least 2 weeks (3 weeks for swimming pools).

New Concrete Bases:

Before commencing tiling, ensure that bases have been allowed to air dry for at least 4 weeks.

Existing Concrete/Screed Bases:

Cut out all loose or hollow portions and make good with 'ARDEX ENDURA A 45' (Rapid drying & hardening repair mortar) or with a 1:3 cement: sand mortar applied over a slurry bonding coat* and dry and cure for 7 days.

Ceramic/Vitrified & Fully Vitrified Tile/Terrazzo/Hard Natural Stone Bases:

Check that existing finish is firmly adhering to the base. Remove any loose or hollow sounding tiles and reprofile with 'ARDEX ENDURA A 45' or with 1:3 cement: sand mortar over a slurry bonding coat*.

* Slurry bonding coat is prepared by mixing 2 parts of Portland cement to 1 part of ARDEX ENDURAADMIX AD1. Brush on the base immediately before applying the adhesive.

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Mixing

Add DIAMOND STAR^{Plus} to clean water. Mix thoroughly until a lump-free mortar is obtained. A 20kg bag will require approx. 3.6 – 4.1 litres of water (A 50 kg bag will require approx. 9 – 10.25 litres of water) to obtain a slump-free consistency. The adhesive is immediately ready-for-use and has a pot life of 3 hours. No further water should be added. Where mixing by weight is not possible, volume mixing can be carried out at site in the ratio of 1:4 (water:powder)

APPLICATION

1. Spread not more than the area which can be tiled within the open time of the adhesive.
2. Comb the adhesive to the required depth using a suitable square notch trowel.
3. Press the tiles firmly into position with a slight twisting action, checking periodically that good contact is maintained with the back of each tile. Leave no voids behind tiles.
4. Tiles should be fixed within 20 minutes of adhesive being applied, depending on the porosity of the surface and atmospheric conditions. Tiles can be adjusted up to 15 - 20 minutes after fixing. Touch the adhesive ribs periodically and if a skin has formed, remove the adhesive and apply a new layer.
5. Leave adequate joints between individual wall and floor tiles unless self spacing tiles are used.
6. Clean off surplus adhesive from the tile face and between joints.

Note:

- Do not use in damp conditions and temperature less than 5°C
- Use suitable clamps along with adhesive at the time of installation of tiles/stones at height of more than 6m. For larger format tiles/stones, use clamps from 3.3m height.
- Leave movement joints at every 3m vertical interval and fill with a flexible sealant as per BS 5385.

SPACERS

Use ARDEX ENDURA spacers for uniform joint width.

GROUTING

Grouting should be carried out after 24 hours. Use the appropriate grouting material from the range of ARDEX ENDURA cementitious and epoxy grouts.

Note: The addition of ARDEX ENDURA ADMIX GT1 to cement-based grouts will enhance adhesion to tile/stones edges, increase water-resistance and improves flexibility.

CLEANING

Tools and containers may be cleaned using clean water when the adhesive is still fresh. The hardened adhesive can be removed from tools mechanically.

STORAGE AND SHELF LIFE

DIAMOND STAR^{Plus} has a shelf life of 12 months when stored in normal dry conditions.

PRECAUTIONS

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

For more details please refer the relevant Material Safety Data Sheet

CONDITIONS OF SALE

Sold subject to the Company's conditions of sale which are available on request.

NOTE

The information supplied in this datasheet is based upon extensive experience and is given in good faith in order to help you. Our Company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products; however as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.



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