ARDEX ENDURA

Building tomorrow

GOLD STAR *Plus*

High Polymer Modified, Cementitious, Tile/stone Adhesive

DESCRIPTION

High polymer modified, grey cement-based tile adhesive suitable for fixing tile/stone in interior walls/floor and exterior floor situations upto 6mm bed thickness (can be extended up to 12 mm in area of limited extent). The set adhesive is water-resistant and is suitable for use in showers and totally immersed situations such as swimming pools. GOLD STAR *Plus* is used for fixing mosaics, vitrified and fully vitrified tiles, terrazzo and natural stone,for tile on tile application, on low absorbent substrates like Mivan wall/Shear walls and on waterproofed substrate.

Note: Not recommended for direct use onto gypsum plaster (wall finishes), paint or metal.

STANDARDS

Confirms to **IS 15477: 2019 Type 2T** "Adhesives for use with Ceramic, Mosaic and Stone Tiles"

Confirms to **EN 12004: 2017** and is as improved cementitious adhesive (C2) with slip resistance (T) extended open time (E) of class **C2TE**

FEATURES

- Very high bond strength
- Easy mixing, smooth application & better workability
- Suitable for most common substrates and tiles
- Water resistant
- Enhanced working time
- Enhanced flexibility & adhesion can be obtained with addition of ADMIX AD1 (latex additive).

SUITABLE BACKGROUND / BASES

New substrates:

- Concrete walls & mivan/sherarealls
- Cement sand screed
- Cement sand render
- VDF/Tremix concrete
- Substrate with waterproofing

Renovation works on existing:

- Unglazed tiles
- Hard natural stones*
- Glazed tiles* (vitrified and ceramic tiles)
- Mosaic tiles* and In-situ mosaic flooring*

*The surface should be abraded (roughened) and cleaned before installation.

PHYSICAL PROPERTIES @ 27 ± 2°C

Bed Thickness	upto 6 mm (suitable upto 12mm in areas of limited extent)
Pot Life	5 hours
Setting Time	24 hours
Temperature Resistance	-30°C to 150°C
VOC Content	1.12 g/L

Properties as per IS 15477: 2019 @ 27 ± 2°C

Property with Test Method	Min. Requirements	Typical Result
Tensile Adhesion Strength (as per Annex A)		
Dry Condition	1.00 N/mm^2	≥1.31 N/mm^2
Wet Condition	1.00 N/mm^2	≥1.16 N/mm^2
Shear Adhesion Strength (as per Annex B)		
Dry Condition	1.25 N/mm^2	≥1.37 N/mm^2
Heat Aging Condition	1.00 N/mm^2	≥1.16 N/mm^2
Wet Condition	1.00 N/mm^2	≥1.16 N/mm^2
Open time (as per Annex C)	As per Mftr.	30 mins
Adjustment time (as per Annex D)	As per Mftr.	40 mins
Slip (as per Annex E)	< 0.50 mm	0.3 mm

Properties as per EN 12004: 2017 @ 23 ± 2°C

Property with Test Method (as per Part 2)	Min. Requirements (as per Part 1)	Typical Result
Tensile Adhesion Strength (Clause 8.3)		
Initial	≥ 1.00 N/mm^2	> 1.20 N/mm^2
After water immersion	≥ 1.00 N/mm^2	> 1.20 N/mm^2
After heat aging	≥ 1.00 N/mm^2	> 1.20 N/mm^2
After freeze-thaw cycles	≥ 1.00 N/mm^2	> 1.00 N/mm^2
Extended open time Tensile Adhesion Strength (Clause 8.1 & 8.3)	≥ 0.50 N/mm^2 after not <30min.	> 0.50 N/mm^2
Slip (T) (Clause 8.2)	≤ 0.50 mm	0.30 mm

COVERAGE ESTIMATES

Square notch Trowel size	Coverage for 20kg bag (@ 45°angle of trowel)
6mm X 6mm	74 - 77 Sqft
8mm X 8mm	55 - 58 Sqft
12mm X 12mm	37 - 39 Sqft

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.

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Pack size
20 kg

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

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

Existing Concrete/Screed Bases:
Cut out all loose or hollow portions and make good with a 1:3 cement : sand mortar applied over a slurry bonding coat* and let it cure and dry 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 a 1:3 cement: sand mortar over a slurry bonding coat*. Any surface contamination should be removed with HEAVY DUTY TILE CLEANER/TILE & STONE CLEANER.
*Slurry bonding coat is prepared by mixing 2 parts of Portland cement to 1 part of ADMIX AD1. Brush on the base immediately before applying the adhesive.

Mixing

Add GOLD STAR *Plus* to clean water. Mix thoroughly until a lump-free mortar is obtained. Allow the adhesive to rest for 3 -5 minutes. Remix the adhesive before it is ready to use. Where mixing by weight is not possible, volume mixing can be carried out at site in the ratio of 1 : 3.5 (water : powder)

Water Content
20 kg Bag : 4.40 to 5.0 ltrs

In case of using latex additives,
Water+ADMIX AD 1
20 kg Bag : 3.40 to 4.0 ltrs+1 ltrs of ADMIX AD 1

APPLICATION

1. Spread not more than the area which can be tiled within the open time of the adhesive.
2. The mixed adhesive is applied to the prepared surface with a trowel and then combed through with a suitably sized square-toothed notched trowel.
3. The tiles should be fixed within the open time of the adhesive and pressed into place with a twisting and sliding action ensuring solid bed fixing is achieved. The open time is dependent on site conditions and will be extended in lower temperatures and shortened at higher temperatures.
4. Check periodically that good contact is maintained with the back of each tile.
5. Touch the adhesive ribs periodically and if a skin has formed, remove the adhesive and apply a new layer.
6. Leave adequate joints between individual wall and floor tiles unless self-spacing tiles are used.
7. Clean off surplus adhesive from the tile face and between joints

Note

- Do not use in damp conditions and temperature less than 5°C
- Seal the sides & bottom of porous stones with UNDERTILE & STONE PRIMER to avoid migration of moisture. (data removed)
- Use suitable clamps along with adhesive at the time of installation of tiles/stones above 3m height as recommended by IS 15477: 2019
- For large span tiling works, leave movement joints at every 3m interval and fill with a flexible sealant as per BS 5385.
- Prevent foot traffic till the adhesive has completely set.

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 cementitious and epoxy grouts.
Note: The addition of ADMIX GT 1 to cement - based grouts will enhance adhesion to tile/stones edges, increase water-resistance and improves flexibility.

SEALERS

ARDEX ENDURA offers a range of Tile & Stone surface sealers depending on the desired finish:

- Wet look finish: Use 'Heavy Duty Impregnating Tile & Stone Sealer'
- Glossy finish: Use 'Impregnating Tile & Stone Sealer'
- Natural look: Use 'FC SS' or 'FC Sealer `

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

GOLD 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,

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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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