

ARDIFLEX PU 5

Modified Polyurethane Multipurpose Adhesive For Tile & Stone

DESCRIPTION

ARDIFLEX PU 5 is a two-part modified polyurethane multipurpose adhesive for fixing all types of tiles and stones on a variety of substrates in interior and exterior areas on either walls or floor. It has been specially designed for fixing water-sensitive tiles/stones on deformable or absorbent/non-absorbent substrates.

ARDIFLEX PU 5 is flexible and water, freeze and thermal shock resistant when fully cured.

STANDARDS

Confirms to **IS 15477: 2019 Type 5TS2** "Specification for Adhesives for use with Ceramic, Mosaic and Stone Tiles"

Confirms to **EN 12004: 2017** and is a reaction resin adhesive (R2) with slip resistance (T) of class **R2T**

USES

For fixing tiles & stones on deformable and non-deformable substrates such as:

- Wooden/plywood table tops to achieve waterproof substrate.
- Particle boards, Plywood, Plasterboards, Gypsum and Fibre cement boards
- PVC, Rubber and linoleum
- Epoxy or Polyurethane based substrates
- GRP, polyester panels.
- Metal & wood floor and walls
- Cement-based screed, prefab & aluminum framework (like Mivan formwork) finished surfaces

FEATURES

- Ideal for moisture sensitive stones like artificial or agglomerated marble and natural stone that tends to form stains and warp in the presence of humidity and temperatures.
- Suitable for stones coated with epoxy or polyester coatings with or without mesh.
- Non-sag & non-shrink
- High bond strength, chemical resistant
- Freezing, thermal shock resistant
- Reliable bond to impermeable, smooth and vibrating substrates.
- Easy to apply and light weight.
- Ideal for spas, pools and water features

PHYSICAL PROPERTIES

ArdiFlex PU 5 @ 27 ± 2°C

Mix Ratio (by weight)	3.8 : 1.2
Mixed Appearance	White
Mixed Density	Approx. 1.5 g/cc
Application temperature	+12°C to +40°C
Service temperature	-40°C to +70°C
Pot life	65 Minutes
Foot traffic	24 hrs

Grouting	After 24 hrs
Full Cure	7 days
Min & Max application	2 - 4 mm

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	≥ 2.0 N/mm ²	2.50 N/mm ²
Shear Adhesion Strength (as per Annex B) Dry Condition Heat Aging Condition	≥ 6.0 N/mm ² ≥ 3.0 N/mm ²	6.20 N/mm ² 5.80 N/mm ²
Open time (as per Annex C)	As per Mftr.	65 mins
Adjustment time (as per Annex D)	As per Mftr.	70 mins
Slip (as per Annex E)	≤ 0.5 mm	0.20 mm
Deformability (as per Annex F)	≥ 5.0 mm	30 mm

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

Property with Test Method	Min. Requirements	Typical Result
Shear Adhesion Strength (Clause 8.5) Initial After water immersion After thermal shock	≥ 2.0 N/mm ² ≥ 2.0 N/mm ² ≥ 2.0 N/mm ²	5.5 N/mm ² 4.8 N/mm ² 5.2 N/mm ²
Open time : Tensile Adhesion Strength (after 70 Minutes) (Clause 8.1)	≥ 0.50 N/mm ²	0.65 N/mm ²
Slip (T) (Clause 8.2)	≤ 0.50 mm	0.20 mm

COVERAGE ESTIMATES

Pack size	Coverage
4 kg	
PART A 3.04 kg	1.5 kg/m ² /mm
PART B 0.96 kg	

Square notch Trowel size	Consumption/m ² (@ 45° angle of trowel)
4mm X 4mm	2.13 Kgs
6mm X 6mm	3.18 Kgs
8mm X 8mm	4.25 Kgs
10mm X 10mm	5.30 Kgs
12mm X 12mm	6.36 Kgs

Note: Consumption can vary depending on the irregularity of the substrate and the format of the tile.

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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.

The substrate must be clean, dry and free from any contaminants such as dirt, grease, oil, which must be completely removed prior to installation. Substrates must be compact and dry, free from any rising dampness. It should be being sound and strong enough to support the weight of the tiles or stone being fixed.

Mixing

Add Part B to Part A and mix with a drill and paddle on a slow speed until a homogenous and uniform coloured paste is achieved.

APPLICATION

Spread the mixed adhesive using a suitable notched trowel of the type and dimensions most appropriate for the format and type of tiles used. Apply the mix evenly as much material that can be tiled within the product's working time. Place the tiles and adjust to the correct position. Do not apply to substrates that have a temperature of less than 12°C or greater than 40°C.

ARDIFLEX PU 5 should not be used on the substrate having rising moisture problem or moisture content of more than 4%.

Back butter large format tiles to provide full bedding and firm support. Place tiles into wet, sticky adhesive and tamp using a beating block or rubber mallet to fix tile and adjust level.

SPACERS

Use ARDEX ENDURA spacers for uniform joint width.

GROUTING

Grouting should be carried out after 12 hrs on walls / 24 hrs on floors. Use the appropriate grouting material from the range of ARDEX ENDURA cementitious and epoxy grouts.

While tiling on deformable substrates, it is recommended to fill the tile joints with cement based grout admixed with ADMIX GT 1 or sealant.

Note: The addition of ADMIX GT 1 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 suitable industrial solvents when the adhesive is still fresh. The hardened adhesive can be removed from tools mechanically.

STORAGE AND SHELF LIFE

ARDIFLEX PU 5 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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