

# FF DURAFIX ULTIMATE

Tile Adhesive as per Type 4 of IS:15477:2019 and Type C2TE S2 of EN 12004-1:2017 Version 2 (07/07/2021)



#### **Features**

FF DuraFix Ultimate is a premium single component thin set highly deformable (flexible) cement and polymer based tiles fixing adhesive, ready to use after addition of water.

It is recommended for use of both wall and floor tiling in interiors and exteriors for the toughest of applications, including those of

- a. Engineered Stones/Composite marbles
- b. Substrates subject to heating, vibration or not fully cured substrates
- c. Tiles susceptible to chemical reactions
- d. Substrates subject to some vibration

The FF DuraFix Ultimate is also suitable for above applications and applications like those on slabs and podiums subject to light vehicular movement.

# **Key features include:**



High Adhesion to Substrate Less peeling off | High bonding



Thin Layer Application Environment friendly



Lower Dimensional Shrinkage Fewer cracks in concrete







Highly Flexible Material Less cracks | Large panel sizes



High Strength
High durability | Low maintenance cost



High Consistency of Material Peace of mind



Fast completion of project



Extensively Tested at Factory Quality assured

# **Application**

Can be used for all type of tiles on

- Plastered surfaces
- Concrete
- Light-weight blocks
- Plaster board/ Fibre Cement
- Heated underfloor
- Wood/Ply
- Properly laid waterproofing membranes

FF DuraFix Ultimate is also ideal for most outdoor tiling needs as it exhibits excellent adhesion properties even after water immersion, heat ageing and under deformation.

### **Appearance**

Premixed plaster powder - ready to use after addition of water and mixing.

### **Specifications**

Please refer to page 3

# **Output/ Coverage**

~1.3 kg/mm/m<sup>2</sup>

#### **Application Thickness**

2 to 12 mm

#### **Base Surface Preparation**

Base surface should be clean and free of any dust, grease and loose particles or any other material that may restrict adhesion. Any water proofing if required should be completed first.

The surface should be dimensionally stable, and free from any de-bonding agents or rising damp.

Ensure proper flat level of the base as that will be more economical in use. Undulations over 10 mm should be corrected by suitable screed/plaster.

Floor bases must be checked and have a minimum Cohesive Tensile strength of 2.5N/mm<sup>2</sup> and wall bases must have a minimum Cohesive tensile strength of 1N/mm<sup>2</sup> for the application.



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Waterproofing membranes of polymeric, bituminous, or even cementitious surfaces may require a layer of Screed application before the tiling can take place for proper adhesion.

In case of application on gypsum or anhydrite surfaces, preparation of surface with FreeForm Primer Humiblock is essential. Even for other surfaces, the use of a suitable FreeForm Primer is recommended.

Advance testing and trial is necessary in case of fixing natural stone with reinforcement layers of resin coating, polymer mesh, matting, etc. or treatments such as damp courses etc., to check for compatibility and suitability of application.

## **Application/Installation Method**

Prepare the mix by adding to FreeForm FF DuraFix Sure to water to the recommended ratio of 5-6 litres per 20 kg bag. A suitable mixing time is 3 to 5 minutes depending on the type of the mixing equipment and the quantity. Let the composition stand for 5 minutes and remix again as above. Small amounts can be mixed even manually. Though the pot life of the material is much longer, it is best to use up the mortar mixture within 30 minutes from mixing.

- The mortar is spread and firmly pressed on the substrate to be tiled covering up to 1 m at a time.
- The system requires the use of a corresponding size of notched edge spatula to achieve a uniform film thickness and to avoid mortar skin formation. The

- positions of the tiles can be adjusted within 10-15 minutes after the installation.
- Ensure full coverage of the adhesive on the tile by lifting and checking a recently laid tile/s
- Tiles over 600mm on any side require application of the adhesive directly and completely on the back surface of the tile.
- Give min. 24-48 hours before grouting.
- Do not apply in temperature below 5°C and above 35°C.

## Curing

The covered surface should be cured for a period of 5 days. Avoid direct rainfall or freezing temperatures during the first 24 hours after use.

## **Open to Traffic**

Tiles may be subjected to foot traffic after 2 days and full cure is assumed to be 5-7 days depending on weather conditions.

# **Packing**

25 kg bag

#### **Shelf Life**

6 months from date of packing before opening. Use within few hours of opening. Store carefully away from dampness and moisture.

## **Technical Support**

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# **Applicable Standards**

Standard	Marking
As Per EN 12004-1: 2017	C2TE S2
As per IS 15477: 2019	Type 4

# **Specifications**

Test Name	Relevant Standard	UOM	Require- ment	Result	Meaning
Workable Life	EN 1015-9 :1999	min	NA	120	
Final Setting Time	EN 196-3: 2003	min	NA	~350	
Initial Tensile Adhesion Strength	EN 12004- 2:2017	N/mm²	≥ 1.5	Conforming	High adhesion strength
Tensile Adhesion After Water Immersion	EN 12004- 2:2017	N/mm²	≥ 1	Conforming	Suitable for wet areas
Tensile Adhesion After Heat Aging	EN 12004- 2:2017	N/mm <sup>2</sup>	≥ 1	Conforming	Suitable for area subject to high temperatures up to 70° C
Shear Adhesion Dry	IS 15477:2019	N/mm <sup>2</sup>	≥ 1.5	Conforming	Good shear strength— Especially relevant for walls
Shear Adhesion Wet	IS 15477:2019	N/mm <sup>2</sup>	≥ 1	Conforming	Suitable for wet areas
Shear Adhesion After Heat Aging	IS 15477:2019	N/mm <sup>2</sup>	≥ 1	Conforming	Suitable for area subject to high temperatures up to 70° C
Slip (T)	EN 12004- 2:2017	mm	≤ 0.5	Conforming	Thixotropic— Will not slip during fixing—Good for walls
Extended Open Time (E)	EN 12004- 2:2017	min	≥ 0.5 after 30min	Conforming	Longer use time without loss of strength—Good for exteriors
*Deformability (S)	EN 12004- 2:2017	mm	≥ 5	Conforming	High transverse bending— Suitable for large format tiles
Adjustment Time	IS 15477:2019	min	≥ 30	Conforming	Longer working time
Water for Mixing	NA	%	Tbd by manufacturer	20 to 24%	

#### Disclaimer

Any recommendations for application techniques are based on experiences. It is advisable to adapt processing techniques and material quantities to the given local conditions and we refer in this context to our general terms of sale and delivery.

#### **Health Precautions**

Adequately protect hands and eyes. In case of contact with eyes consult doctor immediately

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