



**BONDIT HEXAFLEX 300**

**ELASTIFIED THIN-BED TILE DRY-SET CEMENT MORTAR  
[NON-SAG FORMULA]**

# Nexgen Construction Supplements



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# BONDIT HEXAFLEX 300

## ELASTIFIED THIN-BED TILE DRY-SET CEMENT MORTAR [NON-SAG FORMULA]

### PRODUCT DESCRIPTION

Bondit Hexaflex 300 (Thin-Bed Tile Dry-Set Cement Mortar) is manufactured as a dry mix of high-performance hydraulic cement binders, high quality aggregates and high-performance polymers and specially selected modifiers used for installing tiles/marbles/stones. It requires only the addition of water at the job site.

### FEATURES & BENEFITS

- Excellent Workability
- Long Working Time
- Wide range of Layer Thickness (3-12mm)
- Exceptionally Non-Sag
- High Shear & Tensile Adhesion Strength
- Tile-On-Tile/Stone/Marble-On-Stone/Marble Installation
- Exceeds National & International Standards
- Economical

### WHERE TO USE

#### APPLICATIONS AREAS:

#### Indoor & Outdoor (Floor & Wall)

- Residential Buildings,
- Public Access, Offices, Healthcare, Sacral,
- Commercial and Service,
- Balconies, Loggia,
- Slab Stairs Outdoors,
- Kitchens, Laundries, Garages, Bathrooms, Swimming Pools, Showers, Washrooms, Sauna,
- Surfaces exposed to Low & Moderate Traffic.

#### TILES/MARBLES/STONES:

Medium & Large Size ( $\leq 0.36 \text{ m}^2$ ).

- Clay Tiles,
- Ceramic Tiles,
- Terracotta Tiles,
- Terrazzo Tiles,
- Non-Vitrified/Semi-Vitrified Tiles,
- Glass Mosaic Tiles,
- Fully Vitrified Tiles,

- Engineered & Artificial Stones,
- Marbles,
- Natural Stones.

#### SUBSTRATES:

- Concrete, Cement Screeds and Mortars
- Anhydrite Screeds
- Cement, Cement-Lime and Gypsum Plasters
- Walls made of
- Cellular Concrete, Silicate Brick or Hollow Blocks, Ceramic Brick or Hollow Blocks
- Gypsum Blocks
- Tile etc.,

### PACKAGING/COLOUR/WATER

40kg/GREY, White/11-12 litres.

### STANDARDS COMPLIANCE

Standards	Type/Class
BIS 15477	Type: T3 (T)
EN 12004	Class: C2TE
ANSI	Class: A118.4 (ET)
ISO 13007	Class: C2TE

### COVERAGE

Trowel Notch Size	Average Bed Thickness	Approx. Coverage
1/4" x 1/4" (6mm x 6mm)	3 mm	110-120 sq.ft

Coverage will vary depending upon the trowel notch size, back side of the tile and smoothness of the surface.

### SHELF LIFE

Twelve months from the date of manufacture when stored in original, unopened package and under normal warehouse conditions.

### TECHNICAL DATA

## WORKING PROPERTIES

PROPERTY	TYPICAL VALUES
Dry Mortar Density	1300 - 1450 kg/m <sup>3</sup>
Open Time	30 minutes
Adjustability Time	30 minutes
Pot Life	4 Hours
Foot Traffic	16-24 hours

### PERFORMANCE PROPERTIES ACCORDING TO BIS 15477, TYPE: 3(T).

TENSILE ADHESION STRENGTH		
Test Conditions /Method	Standard Requirement	Typical Values
Dry Conditions/ Annex A (Clause: 5.1)	minimum 1.50 N/mm <sup>2</sup>	>1.60N/mm <sup>2</sup>
Wet Conditions/ Annex A (Clause: 5.1)	minimum 1.00 N/mm <sup>2</sup>	>1.25 N/mm <sup>2</sup>
SHEAR ADHESION STRENGTH		
Dry Conditions/ Annex B (Clause: 5.2)	minimum 1.50 N/mm <sup>2</sup>	>1.65 N/mm <sup>2</sup>
Heat Ageing/ Annex B (Clause: 5.2)	minimum 1.00 N/mm <sup>2</sup>	>1.25 N/mm <sup>2</sup>
Wet Conditions/ Annex B (Clause: 5.2)	minimum 1.00 N/mm <sup>2</sup>	>1.25 N/mm <sup>2</sup>
Slip Resistance/ Annex E (Clause: 5.5)	≤ 0.5 mm	<0.20 mm

### PERFORMANCE PROPERTIES ACCORDING TO EN 12004/ISO 13007, CLASS: C2TE.

Test Conditions /Method	Standard Requirement	Typical Values
Open Time/EN 1346	≥ 0.50 N/mm <sup>2</sup>	>0.75 N/mm <sup>2</sup>
Slip Resistance/EN 1308	≤ 0.50 mm	<0.20 mm
TENSILE ADHESION STRENGTH		
Initial/ EN 1348 (Clause: 8.2)	≥ 0.50 N/mm <sup>2</sup>	>1.25 N/mm <sup>2</sup>
After Water Immersion/ EN 1348 (Clause: 8.3)	≥ 0.50 N/mm <sup>2</sup>	>1.25 N/mm <sup>2</sup>
Heat Ageing/ EN 1348 (Clause: 8.4)	≥ 0.50 N/mm <sup>2</sup>	>1.30 N/mm <sup>2</sup>
Freeze- Thaw/ EN 1348 (Clause: 8.5)	≥ 0.50 N/mm <sup>2</sup>	>1.25 N/mm <sup>2</sup>

*PLEASE NOTE: The information given in this chart is based on our best experience and indicative only. It must in any event be verified by the end user, who assumes all liabilities deriving from utilization of the product.*

## APPLICATION INSTRUCTIONS

### SURFACE PREPARATION

New floor and wall surfaces must be allowed to cure for the minimum periods detailed below to ensure that the tile/marble/stone installation is not compromised by drying shrinkage movement in the substrate:

- New concrete – 6 weeks
- New screed – 4 weeks
- New brickwork – 4 weeks
- New render – 2 weeks

Any screeding or rendering must be firmly attached to the underlying concrete or brickwork, and the substrate must be structurally sound (no crumbling, cracking, etc) and of a quality and consistency suitable for tiling. All damaged, defective, deteriorated or hollow sounding areas must be removed and made good before proceeding.

The substrate must be clean and free from all traces of surface laitance and contamination such as dust, dirt, waxes, oils, bitumen, old adhesives, paint, grease, weak cement screeds and renders, shutter release and curing agents, sealing compounds, etc. Organic or fungal growth must be removed using an effective fungicide.

The substrate must have a moisture content of 5% or less before tiling is commenced. The substrates that are to receive tile, maximum permissible variation in the plane or slope ¼ in in 10ft. (6mm in 3m) from the required plan when measured with a straight edge.



## MOVEMENT JOINTS

Movement joints, peripheral joints according to EJ-171 must be provided to accommodate movements in tile/stone. Use an appropriate flexible sealant. Non-provision of movement joints will lead to cracks and breakage of grout joints/tile/stone. Do not use this product in movement joints.

## MIXING

Bondit Hexaflex 300 can be mixed with a mechanical mixer with a high shear mixer or a suitable drum mixer that creates a forced action mixing.

1. Use slow speed an electric drill fitted with a spiral paddle (approx.400 rpm)
2. Maintain the mixing ratio as given,
3. Only mix with clean potable water. Place 3/4 of desired mixing water, start mixer then slowly add the dry mix,
4. To this mix, while stirring with a mixing paddle attached to a drill, slowly add the remaining 1/4 water until the desired consistency is achieved,
5. Mix for 3 - 5 minutes to ensure a uniform lump free consistency,
6. Leave it for Slaking. Approx.5 minutes.

## INSTALLATION

The adhesive shall be spread on the substrate by means of a serrated trowel. The size of these teeth shall be selected depending on the tile size. If both the trowel teeth size and the adhesive consistency were correctly selected, the tile pressed against the adhesive should not move from the vertical surface and the adhesive should cover at least 80% (Indoor) & 95% (Outdoor) of the tile soffit. The tiles/marble/stone shall not be soaked in water. They shall be laid on the adhesive within the specified time (25-30 min). The tiles/marble/stone shall not be laid tightly. The joint between them shall be 2 - 15 mm, depending on the tile size and the operational conditions. The joints shall be grouted after at least 24 hours, using Bondit Grout Dek 25 (Cementitious Tile Grout)/Bondit Spectra-Joint (Epoxy Tile Grout).

**NOTE: In order to realize all the product advantages, for high quality installation and best performance, it is necessary to follow the best installation practices or ANSI A108 or other relevant codes and good practices.**

## PRECAUTIONS

- Use only when the product, air, and surface temperature are above 5°C for a minimum of 24 hours,
- Mortar temperature should be maintained from 10°C – 40°C to achieve specified results,
- Do not retemper Bondit Hexaflex 300 by adding water as it will affect the mortar performance,
- Do not mix more Bondit Hexaflex 300 than can be placed in 25-30 minutes. Do not add additional water other than specified. Discard any mortar that has stiffened or is unworkable,

## DO'S & DON'TS

- The tiles/marble/stone must not be soaked before fixing. When determining the adhesive thickness under the cladding, one should consider the geometric deviation of tiles/marble/stone shape, e.g. plane warpage.
- Apply only as much adhesive as can be tiled in 25 – 30 minutes to prevent the adhesive from “skinning” before the tiles are applied. Should a thin skin form, the adhesive must be freshened up by respreading with the notched trowel.
- Do not wet the adhesive with water as the water will form an anti-adhesive film. Dry or hardened adhesive must be removed and discarded.
- Bed tiles/marbles/stones firmly using a Rubber Mallet. When tiling floors or exterior walls ensure that the tile is in full contact with the adhesive. Occasionally, lift a tile to ensure that there are no air pockets or voids. Never fix tiles using the ‘spot’ method.

- Back buttering with a thin coat of adhesive may also be required when using large format tiles to ensure full contact and a solid bed of adhesive behind each tile/marble/stone. Never butt joint tiles.
- Always leave grout joints between tiles/marbles/stones; at least 2mm wide between ceramic wall tiles, 3mm between porcelain, granite and marble tiles, and 5mm between natural stone and ceramic tiles.
- Do not tile/marble/stone over structural, expansion or cold joints in the background. These joints must be extended through the various layers to the surface. Ensure that the grout joints and tile panel movement joints and perimeter joints are raked out and all adhesive residues removed before the adhesive dries.

## CLEAN UP

Wash all tools and equipment with fresh, clean water immediately after use. The residues of Bondit Hexaflex 300 set mortar can only be removed mechanically.

## HEALTH AND SAFETY

Avoid contact with skin. Protective gloves and clothing are recommended when mixing or using this product. Please refer to full MSDS (material safety data sheet) for this product, which is available from Bondit upon request.

## TECHNICAL SUPPORT

Technical information and guidance regarding BONDIT range of admixtures, repairs and bonding, water proofing systems, epoxy industrial flooring systems etc, will be available from the technical services department, BONDIT CONSTRUCTION CHEMICAL PVT LTD.

### CAUTION!



### HAZARD STATEMENTS:

Harmful if swallowed. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. May cause respiratory irritation.

### PRECAUTIONARY STATEMENTS:

Wear protective gloves/protective clothing/eye protection/face protection/respiratory protection. Avoid release to the environment.  
IF SWALLOWED: Rinse mouth with plenty of water.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
IF ON SKIN (OR HAIR): Remove all contaminated clothing immediately. Rinse skin with water/ shower.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Call a poison centre/doctor if you feel unwell.

**STORAGE:** Store in a well-ventilated place. Keep container tightly closed. Store locked up.

**DISPOSAL:** Dispose of contents and container in accordance with all local, regional, national and international regulations.

**SDS is available from [www.bondit.in](http://www.bondit.in)**


## IMPORTANT NOTE


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BONDIT products undergo high standard quality checks and every reasonable precaution is taken in the manufacture of all products. BONDIT continuously strive to ensure the products, recommendations, specifications & information given is reliable, correct and accurate. No specific guarantee can be assured as product performance depends not only on quality but also on many other factors which are not under our control. The customer should make his own trials to determine the compatibility of the product for his own purpose. All products are sold subject to our standard terms and conditions of sale.

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