

## TECHNICAL DATA FOR BS BONDSMART

### Technical Mortar for fixing & finishing AAC Blocks, Concrete Bricks & Clay Bricks

#### Description of BS BondSmart

BS BondSmart block adhesive is a smart innovation as a premixed dry mortar using high quality materials, including cement aggregates and proprietary additives. This technical mortar is suggested to be used after adding water to make a high-performance thixotropic mortar paste, to be used for bonding blocks such as AAC Blocks or aerated lightweight concrete blocks, fly ash blocks, concrete hollow blocks, cellular lightweight concrete blocks, earthen bricks or levelling out the brick work surface with paste thickness up to 12mm, as per requirements of various IS & EN codes.

It can also be used as tile adhesive & as a plaster or for smoothing of AAC block walled surface.

#### Advantages of BS BondSmart

1. No curing required
2. Higher Strength than ordinary mortars
3. Good flexural strength to resist natural vibrations
4. Perfect adhesion for all kinds of masonry blocks
5. Thinner joint possible with improved adhesion
6. Easy Use
7. Longer working time for hotter climates
8. Application is fast & economical

#### Recommended Application of BS BondSmart

BS BondSmart is the proper adhesive for fixing Blocks on even less-porous substrates such as cement door frames. Typical application substrates are

- AAC or Aerated Lightweight blocks
- Concrete / Cement Mortar Blocks/Bricks
- Hollow Concrete blocks
- LightWeight Cellular concrete blocks
- Fly Ash Blocks
- Earthen Bricks
- Clay Bricks
- Plaster for Flat Level Bock Walls
- Smoothing over of masonry surfaces

#### Consumption of BS BondSmart

Consumption is based on finish of surface of the substrate, dimension of blocks and the thickness of paste applied. Following is an estimated coverage of BS BondSmart mortar when blended with 25%-30% Water.

Following is an estimated table for area in Sq. Ft for a wall that can be built using the standard AAC Blocks of size 600mm X200mm X 100mm

Paste Thickness	Coverage Per 20Kg Bag
2mm	120 Sq.Ft
3mm	80 Sq.Ft
4mm	60 Sq.Ft
5mm	45 Sq.Ft
6mm	32 Sq.Ft

“NOTE: Coverage varies on the surface condition, thickness of paste and applicator skill “

#### **Performance Data of BS BondSmart cured paste when mixed with water.**

*Applicable Standard:* Conforms to ANSI A118.1 & ANSI A118.4-1999

Criteria	Result
Compressive strength	>5 MPa
Flexural Strength	>3 MPa
Tensile Adhesion strength	>1MPa
Pot Life	1 Hour
Open Time	30-35 minutes
Full Cure	14 Days
Wet Density	1750 Kg/m <sup>3</sup>
Appearance	Light Grey Free Flowing Powder

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#### Application tips for BS BondSmart

##### Surface Preparation

1. When applying the substrate should not be above 33 C degree & below 4 degree C
2. Rough or uneven concrete surfaces should be made smooth with polymerized mortar of BS Smartbond @4% of cement added to equal parts Sand & Cement & Water.
3. Application can be done on a moist surface, also make sure the surface is plumb and levelled.

##### Mixing of BS BondSmart

1. Add 3.5L to 4L of potable water to 20 Kg bag of BS BondSmart Block Adhesive for making the thin bed block bonding adhesive mortar
2. Add powder slowly to water in the bucket and slowly mix by hand or slow speed mixing machine.
3. Mix for 4 to 5 minutes until a smooth lump free paste is formed

#### Application of BS BondSmart

##### A) As an adhesive mortar for Blocks

1. Before spreading paste mortar, make sure that the block work is dry, surface is dust free.
2. Apply the prepared paste mortar on the block up to 2- or 3-mm thick layer, using a notched trowel and place blocks on the mortar, slightly tapping it so set it in position.
3. Maintain the joints between the blocks as required and seal these joints with the mixed mortar, using a trowel.

##### B) Smoothing over the block work

Before applying BS BondSmart mixed paste mortar, apply a thin priming/scratch coat layer of 1 to 2mm thick using a notched trowel on the block work. After this apply BS BondSmart block adhesive paste at an average thickness of 8 to 10mm

##### C) As an Adhesive to install tiles

BS BondSmart may be used as an adhesive to bond vitrified tiles or stone tiles on walls made from AAC Block/Fly ash brick walls. Use a suitable notch trowel to achieve the required thickness of the adhesive layer. We recommend a minimum 3mm for such uses.

##### D) As a Plaster over Block Walls

Good levelled, in plumb and lined up block walls can be plastered with an 8 to 10 mm plaster. This is useful as the non-absorbent nature of the blocks sometimes cause normal plaster to slip off.

#### Packaging: 20 Kg, Plastic Lined, Moisture Resistant Sacks

#### Storage & Shelf Life of BS BondSmart

The product is to be stored under shade, proper cover, stacked not more than 12 on pallets, free from moisture & sunlight. Expected shelf life of 12 months. Best Before use 6 Months