



Ultra BOND
CONSTRUCTION CHEMICALS

Since 2000

Technical Data Sheet



DIAMOND EX-450

Multipurpose Tile adhesive for exterior and interior floor & wall

It is a polymer modified cement based white powder for multipurpose tile adhesive. It can provide outstanding bonding of tiles with cementitious surfaces. It is recommended for tiles on tiles, swimming pools, white wall tiles, white floor tiles, and glass bricks in interior and exterior applications.

Features / Benefits

- Ideal for interior and exterior purposes
- Easily applicable
- Brilliant binding properties
- It is non-shrinking
- Fast and economical
- Free from thermal expansion
- White smooth and glossy finish

Substrates

- Concrete
- Concrete masonry
- Cement mortar beds
- Cement plaster
- Ceramic tile, Vitrified tile, Glass mosaic tile and Natural stone
- Cement backer/Calcium silicate/Gypsum wall boards*
- Brick masonry
- Cement terrazzo

**Consult the backer board manufacturer's data sheet for the specific recommendations and load bearing capacity before installation of tile or stone*

Application

Designed especially for exterior and interior floor and wall installations of all types of ceramic tiles, vitreous/semi vitreous tile, glass mosaic tiles, precast terrazzo, engineered stone floors and natural stones over concrete and on a variety of cement based substrates. Good under water shear bond allows this product to be used for wet areas like swimming pools, sauna, water bodies and wash rooms. Can also be used as slurry bond adhesive in wet on wet applications, tile on tile applications.

Certifications

IS 15477-TYPE -2



Performance properties

Ultra BOND DIAMOND EX 450 adhesive mixed with water
The Adhesive mortar confirms to IS 15477-type 2 standard

IS Data		
Property : Test Method	Requirement	Typical Values
Shear Adhesion		
Dry condition- 24 hrs under normal laboratory conditions	Min 4 kN	6.0-7.0
Dry condition 14 days under normal laboratory conditions	Min 10 kN	11-12
Heat ageing condition- 7 days under normal lab condition + 7 days storage in an oven at 100+/-2° C	Min 5 kN	6.5-7.5
Wet condition- 7 days under normal lab conditions + 7 days immersion in water at lab temp	Min 5KN	6.5-7.5

Packaging

20 kg,

Colour

White

Coverage

1 bag=20 kg approximately 50 Sqft in 3mm thickness
Coverage will vary depending on trowel notch size, type and size of tile and substrate smoothness and evenness

Shelf Life

12 months from the date of original packing in dry conditions.

Storage

Store in a cool dry place

Working properties at 21° C (70° F)

Ultra BOND DIAMOND EX 450 adhesive mixed with water

Open time	40-45 Minutes
Pot Life	45-50 Minutes
Time to foot traffic	24 hrs
Adjustability time	45 minutes

METHOD STATEMENT

Substrate:

The surface to be covered with Ceramic tile shall be sound and confirm to good design, rigid, clean and free of dirt, oil, grease, curing compounds, form release agents or loose plaster and paint. For economy the surfaces should be level and true with in: Walls 3mm in 2.5m, Floors 1.5mm in 1.0m.

Surface Preparation:

If a plaster/leveling mortar bed is applied, ensure that it is cured for at least 7 days to achieve proper strength before application of tile adhesive for installation of tile .Ensure the substrate is clean and free from impurities like dust, dirt, debris, oil, grease, curing agents, and loose plaster etc.

Dampen the floor before application of the adhesive.

Clean the back of tile for any dust or coating.

Mixing:

The products can be mixed by hand or slow speed electric drill mixer (less than 300 rpm). Pour potable clean water in a clean container and then add the powder **Ultra** BOND DIAMOND EX 450 and mix until the mixture becomes creamy and plastic. Do not over mix. Leave the mix to slake for 5-10 min and remix before use. Mix only sufficient quantity of adhesive for immediate need.

Proportion:

Approximately 1 bag (20 kg) of **Ultra** BOND DIAMOND EX 450 with 5 liters of water. Adjust quantity of liquid to obtain proper consistency.

Application

Natural Stone Installation

Apply adhesive to the substrate with the flat side of the trowel, pressing firmly to work into surface. Comb on additional adhesive with the notched side. Use the proper sized notched trowel to ensure full bedding of the stone. Spread as much adhesive as can be covered with stone in 10 minutes. Back butter large format stones (> 12"x12") to provide full bedding and firm support. Place stones into wet, sticky adhesive and beat in using a beating block and rubber mallet to imbed stone and adjust level. Check adhesive for complete coverage by periodically removing a stone and inspecting bedding adhesive transfer onto back of stone. Use of spacers is recommended to provide grout joints between stones. The joint width shall be as per the recommendation of architect /engineer. Remove the spacers when the adhesive is set firm.

Manufactured & Marketed By:

يتم تصنيعها وتسويقها بواسطة:

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