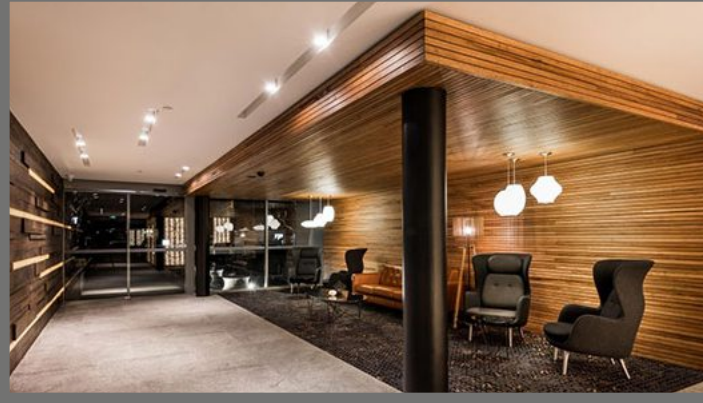


TECHNICAL DATA SHEET



RITEBOND® PU

Polyurethane (PU)
Based Flexible Adhesive

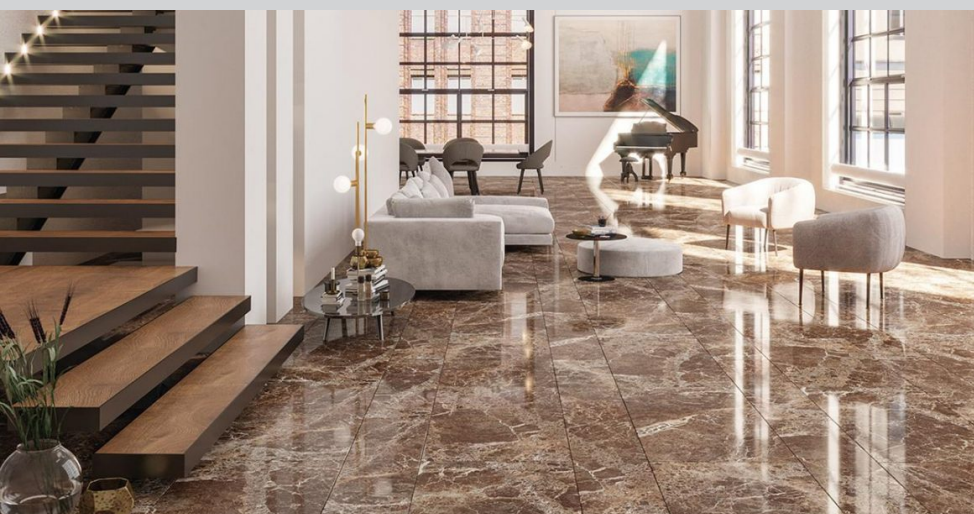
(Ref. MBPL / TDS / RITEBOND-PU / 0524)

❖ Product Description

RITEBOND® PU is two component Polyurethane Adhesive, designed for permanent bonding of wide range of ceramic and vitrified tiles, large size tiles, glass mosaic, sensitive natural marbles, granite stones slabs and synthetic / engineered stone on interior & exterior walls and floor areas. RITEBOND® PU adhesive is also suitable for superior bond strength on substrates such as plywood, glass or metal. It also provides balanced thixotropic and superior performance elasticity ensured by the use of stabilized polyurethane resin for rapid and secure laying operations on high deformable and high-expansion substrates.

❖ Special Features

- Two component Polyurethane (**PU**) Adhesive.
- **IS : 15477 - 2019** classified as **TYPE-5 TS2** Adhesive.
- **EN 12004 / ISO 13007** : Classified as an **R2T** Adhesive.
- Superior adhesion to all substrates including metals.
- High elasticity, extremely flexible and resistant to ageing.
- Highly thixotropic and non sag formula.



❖ Application

- Suitable for all size tiles and stones fixing
- Suitable for internal & external wall applications with all type of vitrified tiles and stones
- Suitable for granite, marble, composite marble all types of natural stones and large scale tiles
- Suitable for high bonding strength on multiple substrates
- Ideal for marble and natural stone installations on various types of substrates

❖ Advantages

- Superior adhesion to all substrates including metals
- Easy to use and creamy mix consistency to work
- Excellent adhesion properties and workability
- Excellent waterproofing characteristics
- High elasticity, extremely flexible and resistant to ageing
- Dual purpose for floors / walls and internal / external applications
- Highly flexible and superior bond strength, bonds to various substrates
- Suitable for building facades and vertical stone cladding
- Highly thixotropic and non sag formula
- Superior bonding with UV Resistance and stability to Thermal shock

❖ Suitable Substrates

- Ceramic Tiles
- Vitrified Tiles
- Glass Mosaic & Glass Tiles
- Large size tiles
- Artificial Stone / Engineered stones
- Composite Marble
- Humidity sensitive natural stones, marble & Granites
- Wood, Plywood and its derivatives
- All non- absorbent substrates
- Natural stone on non-porous surfaces such as glass, metal etc.
- Metal substrates - Aluminium, Brass, MS plates, etc.

❖ Coverage

- Approx. 4 - 5 sq. ft. / kg (at approx. 3 mm bed thickness)
- Above results are as per standard laboratory conditions
- Coverage may vary depending on trowel notch size, substrate smoothness and absorption

❖ Packing

- Available in **4 kg** Pack (Part A - Resin : 3.2 kg + Part B - Hardener : 800 gm)

❖ Shelf Life

- Factory sealed packs are best before 12 months from the date of manufacturing in unopened condition and stored in cool & dry area

❖ How to Apply

Surface Preparation

- The surface should be clean and free from wet, dirt, oil or grease before applying the adhesive
- Ensure that the substrate is always dry, flat, stable, well adhered and has a normal absorption
- In case of undulations, correct the local undulation/damage on the substrate at least 48 hours before the application
- To get flat substrate on concrete or cement surfaces; prepare mortar using **MYMIX SBR 330 / SBR LATEX** for better performance
- Clean the back of tile / stone for any dust or loose particles. Tile or stone must be absolutely dry while laydown on PU Adhesive
- The proper preparation of the surface will make the fixing easier and quicker ensuring a better finish
- The surface should be flat with a tolerance of 4 mm over a distance of 2 meters
- It is essential to waterproof wet areas prior to application
- New concrete is recommended to be 1 month old and completely dried before application
- Cement substrate should not be subject to shrinkage after the installation of the product therefore they must be properly cured
- Depending on the substrate condition; contaminants to be removed from the surface, perform adequate preparation techniques such as grinding or blastcleaning in order to remove all traces of any material that could reduce the product's adhesion to the substrate
- Rust on iron based or metal based substrates must be removed before application
- On non-absorbent substrate, check to confirm that surfaces are firmly and securely bonded and stable
- Substrate must fulfill the requirements of the local standards, be properly cured, structurally sound, dimensionally stable, free of any loose particles

Mixing Details

- Take Part A & B as per mixing chart
- Stir properly to get homogeneous mixture
- Mixing can be done by hand or stirrer
- Ensure no unmixed material left in mixture

Particulars	4 Kg Pack
Part A - Resin	3.20 Kg
Part B - Hardener	800 gm

Note : Not recommended for partial quantity of mixing components.

Application

- Use the proper sized notched trowel to ensure full bedding of the tile
- Use 6mm x 6mm notch trowel for stone & regular tile applications by which get 2-3mm total bed thickness
- For glass mosaic or slim tile applications use 3-4 mm size of V-notch trowel to maintain 1.5-2mm bed thickness

Application

- When both waterproof and bonding are required, use flat edge trowel to spread **RITEBOND™ PU** layer to maintain a thickness of 1-2mm, then rework the surface with a notched trowel for tile installations
- Now apply the adhesive on the substrate with the flat side of trowel initially, press firmly and spread the adhesive on the substrate. Then comb the adhesive with notched side of trowel
- To provide full bedding & firm support, apply back buttering on the back side of tile before fixing
- Bed the tiles firmly into the adhesive with a slight sliding and / or twisting action /shear, to ensure a good and uniform contact, fix or adjust the tiles within 30 minutes
- Beat in using a beating block and rubber mallet to imbed and adjust level check regularly to ensure that the back of the tile is in full contact with the adhesive
- Ensure tiles should be laid and adjusted before adhesive grooves get skinning
- Occasionally check the adhesive coverage/contact by flip or lifting the tile. It helps to verify proper contact area/adhesive transfer is achieved to avoid voids
- Ensure adequate gap (grout joint) is kept between subsequent tiles to accommodate for thermal expansion & contraction when tile or stone installing especially on dry wall boards like cement backer board, gypsum, plywood board, calcium silicate board etc. Use spacer to get uniform thickness of grout joints
- Carefully remove excess adhesive immediately from the joints
- Allow to cure the adhesive for 24 hours before grouting

Grout Recommendations

- Joints can be filled after 24 hour of completion of tiling work
- Based on the applications Ritepoxy ESG-1200, Glitter Star, TR, EIG-2200 and Cementitious grouts (CGU) can be applied which are available in more than 28 colours
- Refer Technical Data sheet of Ritepoxy ESG-1200 and Cementitious Grouts for more detail

Notes on Application / Limitations

- Do not apply the adhesive on damped or wet surfaces
- Clean the application tools when the material is fresh
- Do not add any other materials to the mixture or components

Technical Data

General Properties

Testing Parameters	Result
Mixing Ratio	Part A : Part B = 4 : 1
Colour	Part A : White / Part B : Base white
Pot life @ 23 - 27° C	>1 Hour
Application temp. range	+10°C to +40°C
Mixing & Mix Consistency	Easy to mix, High viscous & Thixotropic

Testing Parameters	Result
Setting Time	24 Hours
Foot Trafficable Time	24 hours
Interval for normal use	72 Hours
Grouting	16 Hr. on walls / 24 Hr. on floor
Application / Workability	Easy notching

❖ Technical Data

Technical Performance Data according to IS 15477: 2019 (Classification: TYPE 5 TS2)		
Test Parameters	Specifications	Typical Results
Adjustability Time @ 25 - 27 °C	---	>1 Hour
Open time @ 25 - 27 °C	---	>1 Hour
Slip (Vertical Slip)	≤ 0.5 mm	0 - 0.2mm
Tensile Adhesion strength - Dry condition	> 2.0 N/mm ²	> 2.9 N/mm ²
Shear Adhesion strength - Dry condition (N/mm ²)	> 6.0 N/mm ²	> 6.0 N/mm ²
Shear Adhesion strength - Heat Ageing condition (N/mm ²)	> 3.0 N/mm ²	> 3.3 N/mm ²
Deformability	≥ 5 mm	> 8 mm (S2 category)

Technical Performance Data according to EN 12004 (Classification : R2T)		
Test Parameters	Specifications	Typical Results
Extended Open Time @ 23 - 25°C @ 30 min. (EN 1346)	> 0.5 N/mm ²	>1.3 - 1.5 N/mm ²
Slip (Vertical Slip)	< 0.5 N/mm ²	0 - 0.2mm
Initial Shear Adhesion strength (EN 12003)	≥ 2.0 N/mm ²	> 4.0 N/mm ²
Shear Adhesion strength after water immersion (EN 12003)	≥ 2.0 N/mm ²	> 3.5 N/mm ²
Shear Adhesion strength after thermal shock (EN 12003)	≥ 2.0 N/mm ²	> 3.5 N/mm ²

❖ Standards Followed

- IS 15477 : 2019 - Designation **TYPE 5 TS2** Adhesive
- EN 12004 : 2017 / ISO 13007-1 - Classification **R2T** Adhesive

❖ Precautions

- Keep out of reach of children
- Wear suitable protective cloths, respirator and gloves
- In case of contact with skin/eyes, wash immediately with plenty of water & seek medical help

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