

## TECHNICAL DATA SHEET



### RITEBUILD<sup>®</sup> CTA (Cementitious Tile Adhesive)

(Ref. SIPL / TDS / CTA / 0224 / R-05)

#### ❖ Product Description

RITEBUILD<sup>®</sup> CTA is a cementitious, thinset, polymer based, single component tile adhesive for multipurpose applications. It has excellent adhesion property on concrete and plastered surfaces. It is suitable for ceramic & vitrified tiles installations.

#### ❖ Special Features

- Polymer based, thinset tile adhesive
- **IS:15477- 2019** : Classified as **TYPE-2T** adhesive
- **EN 12004 / ISO 13007** : Classified as **C1T** adhesive
- Suitable for internal floors and walls applications
- Suitable for small to regular size ceramic tiles
- Excellent workability and adhesion properties



## ❖ Application

- Suitable for small and regular size tiles fixing
- Suitable for internal floor and wall applications
- Suitable for ceramic & vitrified tiles
- Recommended for concrete and cement based substrates
- Minimum 3 mm bed thickness is required for any tiling applications

## ❖ Advantages

- Polymer based thinset adhesive
- Single component, easy to use, only water to be added
- Superior adhesion properties and better workability
- Good open time, Non sag formula, self curing properties
- Dual purpose for floor and wall applications
- Excellent adhesion properties and workability

## ❖ Suitable Substrates

- New and old concrete surfaces
- Cement screed beds
- PCC and IPS flooring
- Cement mortar beds
- Plastered surfaces
- Bricks and AAC Blocks

## ❖ Coverage

Ratio - Water : Powder	Trowel Size	Coverage for 20 kg Bag + W
22 : 100	6 mm x 6 mm	56 - 60 Sq ft
22 : 100	12 mm x 12 mm	32 - 34 Sq ft

- Above results are as per standard laboratory conditions
- Coverage may vary depending on trowel notch size, substrate smoothness and absorption

## ❖ Packing

20 Kg and 40 Kg

## ❖ Shelf Life

Factory sealed bags are best before 12 months from the date of manufacturing in unopened condition stored in dry area

## ❖ How to Apply

### Surface Preparation

- The surface should be clean and free from dirt, oil or grease before applying the adhesive
- Ensure that the substrate is 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; prepare mortar using **MYMIX - SBR 330 / SBR LATEX** for better performance
- Dampen the wall or floor before application of adhesive. Remove excess water before application
- Clean the back of tile / stone for any dust or loose particles
- 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 that you waterproof wet areas prior to application
- New concrete is recommended to be 1 month old and completely dried before application

### Mixing

- Take 4.0 to 4.6 litres (20 to 23% weight) of cool and clean tap water in a clean mixing bowl or bucket and add 20 kg of RITEBUILD<sup>®</sup> CTA
- Stir properly for 5 minutes by hand or an electric stirrer to get a smooth and homogeneous mixture
- After stirring wait for 5 minutes, Stir once again. Adjust the consistency if necessary
- Ensure that no powder, lumps particle and unmixed material left in the mixture

### Application

- Use the proper sized notched trowel to ensure full bedding of the tile
- 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 10-15 minutes.
- Beat in using a beating block and rubber mallet to imbed tile 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
- If adhesive grooves are skinned over or cured before laying the tiles, remove the adhesive and apply fresh material to fix.
- 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 and contraction. Use spacer to get uniform thickness of grout joints
- Carefully remove excess adhesive immediately from the joints
- Allow to cure the adhesive for 24 hrs before grouting

### Notes

- Expansion joints shall be provided through the tile work from all construction or expansion joints in the substrates
- Do not cover expansion joints with thin set mortar
- For tile or stone installations on plywood and wood substrates, **MYMIX - THIXOFLEX-PU™** is recommended

### ❖ 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

- The tile laying surface should be in good condition
- Do not use on the wet screed. The surface must be fully cured
- Always add powder to water and never add water to powder
- Do not add excess water than recommended
- During application, Do not attempt to extend the pot life by adding more water to the mixed adhesive
- Product performance on site varies subject to site conditions & installation procedure followed
- Do not add any other materials or substances like sand, aggregates, cements etc to the product. It may adversely affect the performance of product
- Do not use for installing glass mosaic or metal tiles. Use RITEBUILD<sup>®</sup> STA or RITEBUILD<sup>®</sup> GTA adhesive to fix glass mosaic tiles.



## ❖ Technical Data

### General Properties

Testing Parameters	Result	Testing Parameters	Result
Mixing Ratio	Approx. 20 - 23% by weight	Density of Mixture	1.90 - 1.95 g/cm <sup>3</sup>
Colour	Available in GREY	Setting Time	12 - 14 hours
Open Time @ 23 <sup>o</sup> - 27 <sup>o</sup> C	10 - 15 minutes	Trafficable Time	16 - 24 hours
Pot Life	3 - 4 hours	Adjustable Time	10 -15 minutes

### Physical Properties

#### IS : 15477 : 2019 - Classified as TYPE-2 T Adhesive

Property	Specification	Result
Open Time	As per manufacturer	10 - 15 minutes
Tensile adhesion strength - Dry condition 28 days	Min. 1.00 N/mm <sup>2</sup>	1.00 - 1.10 N/mm <sup>2</sup>
Shear adhesion strength - Dry condition 28 days	Min. 1.25 N/mm <sup>2</sup>	1.25 - 1.35 N/mm <sup>2</sup>
Slip Resistance (T)	≤ 0.50 mm	0.25 - 0.30 mm

#### EN 12004 - Classified as C1T adhesive

Property	Specification	Result
Open Time : Tensile Adhesion Strength @ 20 minutes 28days as per EN 1346	≥ 0.50 N/mm <sup>2</sup>	0.60 - 0.70 N/mm <sup>2</sup>
Slip Resistance (T) as per EN 1308	≤ 0.50 mm	0.25 - 0.30 mm
Initial Tensile adhesion strength as per EN 1348 (clause 8.2)	≥ 0.50 N/mm <sup>2</sup>	0.80 - 0.90 N/mm <sup>2</sup>
Tensile adhesion strength after water immersion as per EN 1348 (clause 8.3)	≥ 0.50 N/mm <sup>2</sup>	0.70 - 0.80 N/mm <sup>2</sup>
Tensile adhesion strength after Heat ageing as per EN 1348 (clause 8.4)	≥ 0.50 N/mm <sup>2</sup>	0.70 - 0.80 N/mm <sup>2</sup>
Tensile adhesion strength after freeze-thaw cycle as per EN 1348 (clause 8.5)	≥ 0.50 N/mm <sup>2</sup>	0.65 - 0.80 N/mm <sup>2</sup>

### ANSI A118.1T

Property	Specification	Result
Glazed wall tile shear strength - 7 days	≥200 psi (1.38 Mpa)	225 - 250 psi (1.55 - 1.72 Mpa)
Glazed wall tile shear strength - 7 days water immersion	≥150 psi (1.03 Mpa)	175 - 200 psi (1.21 - 1.38 Mpa)
Porcelain mosaic tile shear strength - 7 days	≥150 psi (1.03 Mpa)	175 - 200 psi (1.21 - 1.38 Mpa)
Porcelain mosaic tile shear strength - 7 days water immersion	≥100 psi (0.69 Mpa)	150 - 175 psi (1.03 - 1.21 Mpa)
Porcelain mosaic tile shear strength - 28 days	≥150 psi (1.03 Mpa)	190 - 225 psi (1.31 - 1.55 Mpa)

**Note:** Specifications are subject to change without notification. The performance properties will depend on field conditions & installation methods

### Standards Followed

- IS 15477 : 2019 - Designation **TYPE-2 T** Adhesive
- EN 12004 : 2017 / ISO 13007 - Classification **C1T** Adhesive
- ANSI A118.1T

### 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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