

# T6

## POLYWED ULTIMA C2TE-S1

C2TE S1 HIGH PERFORMANCE, FLEXIBLE CEMENTITIOUS TILE ADHESIVE

### ADHESIVE

Polywed Ultima C2TE-S1 is a high performance, thin layer, flexible cementitious tile adhesive, supplied ready to use with the addition of water, for bonding ceramic tiles, porcelain tiles and mosaics on every type of floors and walls.

### USES

Polywed Ultima C2TE-S1 is a product used for bonding ceramic tiles in continuous thin layers, up to 10 mm thick. Due to its excellent adhesion, it can be used in situations where traditional tile adhesives for bonding tiles are not suitable due to the type of tile, the sub-strate or the specific job situation / location.

Polywed Ultima C2TE-S1 is suitable to bond the following types of tile:

- Ceramic, porcelain, homogeneous tiles
- All type of low and high absorption tiles

Polywed Ultima C2TE-S1 can be used on substrates including:

- Concrete and mortar
- Bricks
- Tiled surfaces (walls and floors)
- Large size tiles
- Under floor heating
- Interior painted walls - if the paint coating is completely bonded and sound
- Drywall / Precast wall Panel, etc

Polywed Ultima C2TE-S1 can be used on walls and floors, internally or externally.

### ADVANTAGES

- Easy to use with excellent workability and thixotropic consistency
- Polywed Ultima C2TE-S1 can be applied on a vertical surface without sagging or tiles slipping, even when heavy tiles are used
- Very good adhesion to most common substrates (concrete, cementitious mortar, stone, bricks, etc.)
- Very good adhesion to existing tiles
- Easy to use with excellent workability and thixotropic consistency
- Tile on tile of existing flooring with tile refurbishment system

### STANDARDS

- Polywed Ultima C2TE-S1 is classified as C2TE S1 in compliance with EN 12004.
- Polywed Ultima C2TE-S1 is a cementitious adhesive (C) with improved adhesion (2), slip resistance (T), extended open time (E) and deformability (S1).

### PRODUCT INFORMATION

Composition	Cementitious mortar
Packaging	20 kg bag
Appearance / Colour	White powder
Shelf Life	12 months from date of production
Storage Conditions	Store properly in dry conditions, in undamaged and unopened, original sealed packaging. Not sensitive to frost.
Density	Fresh mortar density: ~1.51 kg/l (at +25 °C)
Maximum Grain Size	≥1 N/mm2

### TECHNICAL INFORMATION

Tensile Adhesion Strength (BS EN 1348:2007)	Standard Condition ≥ 1.0 N/mm <sup>2</sup> Heat Ageing ≥ 1.0 N/mm <sup>2</sup> Water Immersion ≥ 1.0 N/mm <sup>2</sup>
Transverse deformation	5 mm ≤ S2 Classification ≤ 10.0 mm, S2 Classified (BS EN 12002:2008)
Slip Resistance	≤0.5 mm (EN 1308:1999)

### APPLICATION INFORMATION

Mixing Ratio	5.5–6.0 L of water per 20 kg bag
Consumption	This depends on the level, profile and surface roughness of the substrate, the size of the tiles and the technique of placing (simple placing or "back"-buttering). As a guide, in kg of powder per m <sup>2</sup> in flat surfaces: Mosaics and small tiles 2.0–4.5 kg/m <sup>2</sup> Normal size tiles (20 cm x 20 cm) 4.5–9.0 kg/m <sup>2</sup> Large size tiles and on external floors (60 cm x 60 cm & above) 9.0–13.5 kg/m <sup>2</sup> The information above may only serve as a guideline. It is highly recommended to run a trial on site to determine the actual coverage and consumption per m <sup>2</sup> .

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Layer Thickness	3 mm min. / 10 mm max.
Ambient Air Temperature	+5 °C min. / +40 °C max.
Substrate Temperature	+5 °C min. / +40 °C max.
Open Time	≥ 0.5 N/mm <sup>2</sup> at 30 minutes(EN 1346:1997) Open time is approximately 30 minutes under normal temperature and humidity conditions. Under unfavorable conditions, the open time might be shorter.
Adjustability Time	Once the tiles are placed into the mortar, they can be adjusted for ~ 30 minutes (at +20 °C).
Applied Product Ready for Use	At +25 °C Before jointing works Min. 24 hours. Before opening to light foot traffic Min. 24 hours Before opening to full traffic Min. 7 days

### APPLICATION INSTRUCTION

#### SUBSTRATE QUALITY / PRE-TREATMENT

- Ensure all concrete slabs are allowed to cure fully and have a wood float finish. Steel trowel finished concrete surfaces must be mechanically abraded prior to commencement of tiling.
- Ensure all surfaces are sound, dry and free from excessive movement, oil, dust, grease, wax, curing compounds, release agents and any other loose or contaminating materials. All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.
- Weak concrete and/or cement laitance must be removed.
- The maximum variation in the plane of the concrete must not exceed 5 mm in 3 metres for floors and 4 mm in 2 metres for walls. Cementitious substrates must be at least 1 month old. All rendered surfaces must be allowed to cure for at least 7 days prior to the commencement of tiling. Allow a waiting time of 24–48 hours.
- All types of cement board / dry walls should be fixed in accordance with the manufacturer's instructions and the relevant standards. The recommended thickness for fibre cement sheets are minimum 9 mm for heavy duty commercial applications and minimum 6 mm for underlay or wall / floor material.
- The recommended thickness for gypsum plasterboard sheets are min. 10 mm for wall substrates.

#### MIXING

Mix thoroughly with clean water for a minimum of 3 minutes. Leave material to stand in container (for a minimum of 5 minutes). Then, remix the material for 15 seconds - the product is now ready for use. Adhesive T1 must be mechanically mixed using a forced action mixer or in a clean container using a drill and mixing paddle (< 500 rpm). A normal free fall concrete mixer is not suitable.

### APPLICATION

Polywed Ultima C2TE-S1 is applied using a notched trowel onto the substrate. Choose the size of trowel that will give the right thickness on the back of the tile. Once the surfaces have been appropriately prepared, apply Polywed Ultima C2TE-S1 onto the substrate using an appropriate serrated trowel. Polywed Ultima C2TE-S1 should be applied onto the substrate at a rate of 1 m<sup>2</sup> at a time. Application rates greater than this can result in the adhesive skinning before the tiles are laid. Once the adhesive is applied onto the substrate, ensure that it does not skin prior to bedding the tiles. If a surface film has developed, pass a notched trowel through the applied adhesive. Rework the adhesive before placing the tiles within the open time. When placing the tiles into the adhesive, press them in using the Tarver Method; press, slide perpendicular and return. Ensure no voids and full coverage of adhesive is under the tiles. For tiles with lugs, grooves or uneven backing, it may be required to back butter the tile with adhesive. The final bed thickness of Polywed Ultima C2TE-S1 should be at least 1 mm for wall tiles and 3 mm for floor tiles. Once tiling works are completed, do not disturb the tiled surface for at least 6–8 hours at 20 °C.

As a guide:

Polywed Ultima C2TE-S1 is used for fixing absorbent tiles up to a maximum size of 10 000 cm<sup>2</sup> (e.g. 60 cm x 120 cm) for indoor floors, up to 3 600 cm<sup>2</sup> (e.g. 60 cm x 60 cm) for indoor walls and outdoor paving, and 2 100 cm<sup>2</sup> (e.g. 30 cm x 60 cm or 45 cm x 45 cm) for façades without any mechanical clamps.

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### CLEANING OF TOOLS

Clean all tools and application equipment's with clean water immediately after use. Hardened / cured material can only be removed mechanically.

### BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.



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