



TECHNICAL DATA SHEET

C1 TILE ADHESIVE

Cementitious Adhesive for Ceramic Tiles

Classification: C1 according to EN 12004:2007 + A1:2012



PRODUCT DESCRIPTION

STZ C1 Tile Adhesive is a cement-based dry mortar specifically developed for the thin-bed installation of ceramic wall and floor tiles for interior applications.

The product provides reliable adhesion, good workability and easy application, making it suitable for residential construction and general interior tiling works.

In addition to tile fixing, the product may also be used as a thin-bed construction mortar where appropriate.

COMPOSITION

The product consists of carefully selected raw materials, including:

- Portland cement
- Graded quartz sand
- Mineral additives

APPLICATIONS

STZ C1 Tile Adhesive is intended for bonding:

- Ceramic wall tiles



- Ceramic floor tiles
- Glazed wall tiles (faience)
- Terracotta tiles

Suitable Substrates

The product is suitable for interior applications on:

- Concrete
- Cement screeds
- Cement renders
- Lightweight concrete
- Autoclaved Aerated Concrete (AAC)
- Gypsum masonry blocks

Recommended Applications

Suitable for:

- Residential buildings
- Interior wall tiling
- Interior floor tiling
- Kitchens
- Bathrooms
- Utility rooms
- Dry interior areas

TECHNICAL CHARACTERISTICS & PERFORMANCE

Essential Characteristic	Performance	Test Method	Harmonised Technical Specification
Initial tensile adhesion strength	1.0 N/mm ²	EN 1348:2008, Clause 8.2	EN 12004:2007 + A1:2012
Tensile adhesion strength after heat ageing	1.1 N/mm ²	EN 1348:2008, Clause 8.4	EN 12004:2007 + A1:2012



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Essential Characteristic	Performance	Test Method	Harmonised Technical Specification
Tensile adhesion strength after water immersion	0.9 N/mm²	EN 1348:2008, Clause 8.3	EN 12004:2007 + A1:2012
Tensile adhesion strength after freeze/thaw cycles	0.8 N/mm²	EN 1348:2008, Clause 8.5	EN 12004:2007 + A1:2012
Open time – tensile adhesion strength after 20 minutes	0.6 N/mm²	EN 1346:2008	EN 12004:2007 + A1:2012

PRODUCT DATA

Property	Value
Classification	C1
Mixing water	Approximately 0.28 L/kg
Water required per 25 kg bag	Approximately 7.0 L
Pot life	Approximately 4 hours
Open time	Minimum 20 minutes
Adjustment time	Approximately 5 minutes
Maximum application thickness	4 mm
Consumption*	Approximately 3.0 kg/m² (10 mm notched trowel)
Colour	Grey
Packaging	25 kg paper bag

*Consumption depends on substrate flatness, tile size and the notch size of the trowel.

TESTED IN ACCORDANCE WITH

- EN 12004:2007 + A1:2012 – Adhesives for ceramic tiles – Requirements, evaluation of conformity, classification and designation
- EN 1346:2008 – Determination of open time
- EN 1348:2008 – Determination of tensile adhesion strength



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PERFORMANCE FEATURES

- Reliable adhesion to mineral substrates
- Good workability
- Easy application
- Thin-bed installation
- Suitable for interior ceramic tile installations
- Excellent value for standard residential applications

SUBSTRATE PREPARATION

The substrate shall be:

- Sound and structurally stable;
- Dry and fully cured;
- Clean and free from dust;
- Free from grease, oil, paint and other contaminants;
- Free from loose or poorly bonded material.

Highly absorbent substrates should be primed with a suitable primer before the adhesive is applied.

APPLICATION TECHNOLOGY

Suitable Substrates

STZ C1 Tile Adhesive is suitable for application on:

- Concrete
- Cement screeds
- Cement renders
- Lightweight concrete
- Autoclaved Aerated Concrete (AAC)
- Gypsum masonry blocks

The product is intended for residential construction and interior applications.



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Mixing

Pour approximately 7.0 litres of clean water into a suitable mixing container for one 25 kg bag of dry mortar.

Gradually add the powder while continuously mixing with a low-speed electric mixer (approximately 400–600 rpm).

Mix for approximately 3 minutes until a smooth, homogeneous and lump-free mortar is obtained.

Allow the mortar to mature for approximately 5 minutes, then remix briefly before application.

Use clean water only.

Do not add cement, sand or other additives.

Mixing Ratio

- 25 kg dry mortar
 - Approximately 7.0 litres of clean water
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Pot Life

The prepared mortar remains workable for approximately 4 hours under standard conditions of 23°C and 50% relative humidity.

Higher temperatures and wind reduce the pot life.

Lower temperatures and higher humidity extend the working time.



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APPLICATION

Apply a thin contact layer of adhesive to the prepared substrate using the smooth edge of a trowel.

Immediately comb the adhesive with a suitable notched trowel, holding it at an angle of approximately 45° to the substrate.

Place the tiles into the fresh adhesive bed while it is still within the open time and press firmly to achieve the required adhesive coverage.

For optimum performance, ensure full contact between the adhesive and the tile.

Remove excess adhesive before it hardens.

Clean the tile surface with a damp sponge immediately after installation.

Minimum Adhesive Coverage

Interior applications

Minimum 65% adhesive coverage.

Exterior applications

Minimum **90%** adhesive coverage.

Note: Although the required coverage for exterior applications is stated above as a general industry reference, STZ C1 Tile Adhesive is intended for interior use only. Exterior applications require an adhesive classified for external exposure, such as C2TE or higher.

RECOMMENDED TOOLS

- Low-speed electric mixer
- Clean mixing bucket
- Stainless steel trowel



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- Notched trowel
- Bricklaying trowel
- Damp sponge

Recommended Notched Trowel Sizes

Notch Size	Recommended Application
4 × 4 × 4 mm	Small-format ceramic tiles
6 × 6 × 6 mm	Tiles with a smooth back
10 × 10 × 10 mm	Tiles with a profiled or ribbed back

GENERAL RECOMMENDATIONS

Always follow applicable building regulations and the installation recommendations for both the substrate and the tile covering.

Do not apply the product:

- at temperatures below +5°C;
- in direct sunlight;
- during rainfall;
- under strong wind conditions;
- in areas exposed to draughts until the adhesive has fully cured.

Low temperatures and high relative humidity will extend the curing time.

High temperatures and low relative humidity will reduce the open time and accelerate curing.

Use clean water only.

Do not add cement, sand or other additives.

If a surface skin has formed on the applied adhesive, remove the adhesive and apply a fresh layer before installing the tiles.



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CLEANING

Clean all tools and equipment with water immediately after use.

Hardened material can only be removed mechanically.

SHELF LIFE

12 months from the date of manufacture when stored in the original, unopened packaging under recommended storage conditions.

STORAGE CONDITIONS

Store the product:

- in dry and well-ventilated premises;
- on wooden pallets;
- in the original, unopened packaging;
- protected from moisture and adverse weather conditions.

Do not expose the product to frost or excessive humidity during storage.

PACKAGING

25 kg paper bags



MANUFACTURER

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IMPORTANT NOTICE

The information contained in this Technical Data Sheet is based on laboratory testing, practical experience and the current state of technical knowledge.

The stated technical values are typical values obtained under controlled laboratory conditions and may vary depending on substrate type, substrate condition, ambient temperature, relative humidity, application method and site conditions.

Before use, the suitability of the product for the intended application shall be verified by the user.

The installer is responsible for ensuring that the product is applied in accordance with the manufacturer's recommendations, the applicable European standards, relevant national regulations and good tiling practice.

This Technical Data Sheet provides technical guidance on the product and its application but does not release the user from the responsibility of carrying out preliminary tests where required by specific project conditions.

The manufacturer reserves the right to modify product specifications without prior notice as part of its continuous product development programme.