



# NOVACOL GEL

## Enhanced cement-based tile adhesive C2TE

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- ▷ **Very good workability**
  - ▷ **For demanding applications**
  - ▷ **Excellent resistance to permanent immersion in water**
  - ▷ **Suitable for all types of tiles and various substrates**
  - ▷ **Resistant to water and severe weather conditions**
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### Description

NOVACOL GEL is a one-component adhesive for ceramic tiles and natural stones in powder form with gel properties, thixotropic and at the same time fluid. Particularly easy to work with for demanding applications to all types of construction material substrates. For indoor and outdoor use.

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### Certifications

CE Marking and Declaration of Performance (DoP) C09308-CPR-2000340 to EN 12004 – as improved cementitious adhesive with extended open time and reduced slip for ceramic tiles for internal and external tiling on floors and walls, C2TE.

VOC emission classification GEV-Emicode EC1<sup>PLUS</sup>, license number 12336/14.02.20

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### Uses

NOVACOL GEL is suitable for fixing coverings such as:

- All kinds of ceramic and Gres porcelain tiles
- Slim tiles, mosaics, stoneware and terrazzo
- Humidity stable marble and natural stones

For applications on horizontal or vertical surfaces such as:

- External areas, swimming pools, balconies etc.
- Internal areas, wet areas like shower rooms and WC
- Heavy traffic floors

For application on various substrates like:

- Properly cured concrete and cement screeds
- Nonabsorbent surfaces (after primer application).
- Renders and plasters
- Cement boards and Gypsum boards (after primer application)
- Underfloor heating systems

## Technical Data

### Product Identity

Form	Powder
Color	White
Chemical substance	Portland cement, aggregates, special additives
Granulometry	$D_{max} : 0.5 \text{ mm}$
Bulk density	$1.4 \pm 0.1 \text{ kg/L}$
Storage	12 months on dry area in the original sealed packaging

### Application data (+23°C & 50% R.H.)

Mixing ratio	7 – 7.5 L of water for 25kg
Density of the mix	$1.6 \pm 0.05 \text{ kg/L}$
Application temperature	from +5°C up to +35°C
Pot life	6 hours
Open time	30 min
Correction time	20 min
Walkability	after 24 hours
Grouting on wall	after 10 - 12 hours
Grouting on floor	after 24 hours
Consumption by trowel	No 4: 1.8 – 2.0 kg/m <sup>2</sup> No 6: 2.6 – 2.8 kg/m <sup>2</sup> No 8: 3.6 – 4.0 Kg/m <sup>2</sup> No10: 4.8 – 5.0 kg/m <sup>2</sup>

### Final performance according to EN 12004:2007+A1:2012

	Performance	Requirements
Initial tensile adhesion strength	$\geq 2.0 \text{ N/mm}^2$	$\geq 1,0 \text{ N/mm}^2$
- after water immersion	$\geq 1.4 \text{ N/mm}^2$	$\geq 1,0 \text{ N/mm}^2$
- after 1 year water immersion	$\geq 2.6 \text{ N/mm}^2$	-
- after heat ageing	$\geq 1.8 \text{ N/mm}^2$	$\geq 1,0 \text{ N/mm}^2$
- after freeze-thaw cycles	$\geq 1.4 \text{ N/mm}^2$	$\geq 1,0 \text{ N/mm}^2$
Extended open time: tensile adhesion strength	$\geq 1.1 \text{ N/mm}^2$	$\geq 0.5 \text{ N/mm}^2$
Slip	$\leq 0.2 \text{ mm}$	$\leq 0.5 \text{ mm}$

## Application Procedure

### Substrate Preparation

The substrate has to be compact, clean, free of grease, oil, laitance and any substances which may compromise the adhesion of NOVACOL GEL. The minimum tensile strength of the substrate must be at least 1,5 N/mm<sup>2</sup> and the minimum compressive strength at least 5 N/mm<sup>2</sup>.

Existing ceramic, Gres porcelain tiles, marble, and stone coverings on floors and/or walls must be firmly attached to the substrate and free of laitance on their surface which may compromise adhesion. If required clean the coverings with appropriate detergent, depending on the type of dirt, like ALCALINE CLEANER or ACID CLEAN and rinse with plenty of water. Prior to the application of tiles, a primer coat of PLANO CONTACT FAST should be applied.

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### Preparation of the mix

Mix the content of the 25kg paper bag containing NOVACOL GEL with 7 – 7,5 liters of clean and fresh water by means of appropriate electrical stirrer low speed for at least 3 minutes, until a uniform mortar free of lumps is obtained. The mix has a pot life of 6 hours. During hot periods and in general, it is recommended to avoid direct sunlight exposure of the materials (in powder or liquid form) before use, otherwise the working time is reduced.

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### Application

The tiles are placed on the still fresh adhesive bed, by applying firm pressure, to ensure full contact between the tiles and the adhesive. The open time of NOVACOL GEL in normal temperature and humidity conditions is 30 minutes. Unfavorable weather conditions like contact with strong direct sunlight, drying and/or hot wind or a very absorbent substrate may reduce the open time significantly. For this reason, it is important to check if the adhesive has formed a superficial 'skin'. If such incident occurs, remove the adhesive from the substrate and reapply it, before applying the tiles. Small corrections must take place 20 minutes after tile application. Surfaces tiled with NOVACOL GEL should not be exposed to rain, strong sun or frost for at least 24 hours.

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### Grouting

Grouting can take place 12 - 24 hours after the tile application. For large size tiles this waiting time might be prolonged. For grouting joints up to 10mm width it is recommended to use NOVAGROUT F. For rectified tiles or when the requirement is very smooth grout surface, NOVACOLOR GLASS can be used. For wide joints of 5 - 20mm NOVAGROUT G can be used. In areas where resistance to strong chemicals is required like in example swimming pools or industrial floors it is recommended to use the epoxy grout NOVAGROUT EPOXY. For additional information refer to the Technical Data Sheets of the relevant products.

## Recommendations

Avoid using:

- In cases where the substrate and environment temperature is less than +5°C or higher than +35°C
- On friable or not properly cured substrates
- In a thickness higher than 10mm
- For bonding humidity sensitive marble and natural stones
- Over not absorbent substrates without appropriate primer
- Over existing expansion joints
- On substrates like polyurethane, acrylic and similar paint or coatings (use NOVACOL 2K ELASTIC)
- On PVC, asphalt membranes and in general materials which polymerize in the long run
- Inside swimming pools without tiles
- Under direct sunlight and/or strong wind

Also note the following:

- Never exceed the maximum recommended quantity of mixing water
- Protect the tiled surface from rain and frost for the first 24 hours
- Do not add cement, lime, gypsum or other binders or substances which may affect the mortar characteristics
- for tiles with a side greater than 60 cm add to the water, depending on the requirements, the plasticizer emulsion NOVALASTIC
- for gypsum or cementitious boards or highly absorbent substrates NOVAPRIMER is as primer required
- for metal or wooden surfaces are suitable only for internal use and with a suitable primer
- for tiles of total surface over 900 cm<sup>2</sup> the double-spreading (buttering) technique of adhesive is always recommended
- Application should be performed by professional skilled workers

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## Consumption

Ceramic tile bonding:

- Mosaics and small dimensions: 2kg/m<sup>2</sup>
- Medium size tiles: 2,5 - 3kg/m<sup>2</sup>
- Large tiles and external areas: 4-6Kg/m<sup>2</sup>

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## Cleaning

Tools, buckets, tiles, etc. can be cleaned with fresh and clean water as long as, NOVACOL GEL is still fresh. After hardening occurs, cleaning can take place by mechanical means.

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## Storage

NOVACOL GEL remains stable for 12 months from production date inside its original sealed packaging, stored in protected dry area in temperature between +5°C and +35°C.

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**Packaging**

Multi-layer paper bags of 25 kg or plastic bag of 5 kg

**Safety Instructions**

For information and instructions regarding disposal and safe handling, users should refer to the latest Safety Data Sheet of the product containing ecological, toxicological and other safety related data.

**Legal Notes**

The technical data and recommendations contained or listed in this leaflet are the result of laboratory measurements, of our current knowledge and experience. All the above-mentioned information and specifications should in any case be considered as indicative, as they may differ from each other. The Company makes every effort to ensure the accuracy of the information provided herein. Product specifications, prices and availability are subject to change without notice and may differ from those shown.

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For the latest and a valid version of the Technical Data Sheet, the user of the material must refer to our website [www.novamix.gr](http://www.novamix.gr) or directly to the QR Code of the product.



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