



Forcol®

PORCELÁNICO

Cementitious adhesive C2T



FORCOL PORCELÁNICO is a cement-based adhesive specially designed for the installation of ceramic tiles, porcelain stoneware, marble, stone, or similar materials, whether small or large format, absorbent or non-absorbent, on indoor and outdoor floors, outdoor baseboards, or indoor walls. Also suitable for the installation of glass blocks.

COMPOSITION

FORCOL PORCELÁNICO is formulated with white or grey cement, selected aggregates, organic and inorganic additives, and resins that improve workability, water retention capacity, and product adhesion.

APPLICATION

Cement-based adhesive specially designed for installing ceramic tiles, porcelain stoneware, marble, stone, or similar materials, whether absorbent or non-absorbent, in indoor and outdoor floors, outdoor baseboards, or indoor walls. Also suitable for installing glass blocks.

PROPERTIES

- ▶ Product subjected to rigorous quality control.
- ▶ Complies with Spanish and European standards (UNE, EN).
- ▶ Guaranteed homogeneity, manufactured with advanced dosing and weighing systems.
- ▶ Easy to apply.
- ▶ High adhesion to the substrate.
- ▶ Excellent water retention.
- ▶ Excellent for installing glass blocks and mosaic tiles in humid areas.

SUITABLE SUBSTRATES

- ▶ Concrete and cement-based floors and plastered coatings, both exterior and interior.

SUBSTRATE CONDITIONS:

Substrates must meet the following conditions:

- ▶ Must be resistant and free of dust, grease, paint, water repellents, antifreeze, etc.
- ▶ Remove degraded or loose areas.
- ▶ Check flatness with a 2-meter ruler; deviations must be less than 5 mm. Level with the same product 48 hours before installation. For thicknesses over 10 mm, use traditional mortars.
- ▶ Do not use on metal or wood parts.
- ▶ For installation on old non-absorbent floors, apply a primer.
- ▶ Do not apply on substrates with moisture content above 3%.
- ▶ For other substrates or questionable adhesion, consult the Technical Support Department at +34 964 343 300 or email comercial.forcol@origenmateriales.es, or refer to the application recommendation table.

COVERAGE

Approximate consumption of FORCOL PORCELÁNICO:

- ▶ 4.5 kg/m² for single bonding.
- ▶ 7 kg/m² for double bonding.
- ▶ Flatness variations may affect coverage.

PRESENTATION

FORCOL PORCELÁNICO is a powdered product and is available in:

- ▶ Approx. 20 kg multi-layer paper bags with moisture-proof bottom film.
- ▶ 1440 kg pallet (72 bags) palletized and shrink-wrapped for rainwater protection, provided they remain hermetically sealed. In summer, shrink-wrapping is single-layer.
- ▶ Color: white and grey. Color identification is shown on all sides of the bag.

STORAGE

12 months from the manufacturing date, in original sealed packaging, stored in a cool, well-ventilated place, protected from moisture.

NOTES

All products undergo quality control in our lab and certified labs. For inquiries about new products or technical advice, contact our design department at:

- ▶ Phone: +34 964 343 300
- ▶ Email: comercial.forcol@origenmateriales.es.

WARNING

This information is based on our tests and experience. Recommendations do not imply any warranty, as application conditions are beyond our control. Users must ensure the product is suitable for their intended use and are advised to conduct a detailed evaluation before large-scale application.

INSTRUCTIONS FOR USE

1. Mix FORCOL EXTRA with approximately 22% water if gray (4.2–4.6 L per 20 Kg bag) or 23% if white (4.4–4.8 L per 20 Kg bag).
2. Mix manually or mechanically until homogeneous and lump-free. Use a slow-speed electric mixer (≈ 500 rpm); slower mixing introduces air and reduces adhesive strength.
3. Allow the mixture to rest for 5 minutes, then remix.
4. For uniform mortar characteristics, use full bags and the same water ratio.
5. Apply with a notched trowel in small sections from bottom to top to regulate thickness. Ensure ridges maintain their shape.
6. Place the ceramic materials and press using a vertical motion to collapse ridges and ensure full contact.
7. Better adhesion is achieved when installation occurs shortly after spreading. For very smooth or deeply grooved tiles, apply adhesive also to the back.

APPLICATION PRECAUTIONS

- ▶ Respect the mixing water ratio. Excess water causes shrinkage and poor adhesion. If the product hardens, re-stir to restore plasticity.
- ▶ In extreme conditions (high temperature or wind), check for surface film formation. This film reduces adhesion and should be removed by re-combing the adhesive. Never moisten with water, as it creates an anti-adhesive layer.
- ▶ Protect ceramic coverings from expansion and contraction with proper joint treatment.
- ▶ Avoid water penetration between substrate and tile during installation.
- ▶ Wind reduces open time and adhesion.
- ▶ Do not use where standing water is present.
- ▶ Double bonding is recommended for formats where at least one side exceeds 30 cm. For high-security applications, max vertical load: 40 kg/m^2 , max format: $40 \times 60 \times 1.5 \text{ cm}$.
- ▶ Press tiles firmly to ensure full contact and avoid voids.
- ▶ For radiant floor heating, turn off 24 hours before installation.
- ▶ Periodically check tackiness by lifting a tile.
- ▶ Proper installation depends heavily on workmanship and substrate condition.

TECHNICAL DATA:

Classification (UNE-EN 12004)	C2T
Mixing water (grey)	$22 \pm 1\%$
Mixing water (white)	$23 \pm 1\%$
Application temperature	$5 - 30^\circ \text{C}$
Powder density	$1,4 \pm 0,05 \text{ Kg/L}$
Paste density	$1,6 \pm 0,05 \text{ Kg/L}$
Initial adhesion	$\geq 1 \text{ N/mm}^2$
Adhesion after water immersion	$\geq 1 \text{ N/mm}^2$
Adhesion after heat aging	$\geq 1 \text{ N/mm}^2$
Adhesion after freeze-thaw cycles	$\geq 1 \text{ N/mm}^2$
Open time	20 minutes
Adjustment time	≤ 20 minutes
Pot life	90 minutes
Joint grouting	24 hours
Walkable	48 hours
Final service time	14 days
Rest time after mixing	5 minutes
Max application thickness	10 mm
Fire reaction	Class A1



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