

Forcol®

FLEXIBLE DEFORMABLE

Cementitious adhesive C2TES1

WHITE GREY **20 Kg**

FORCOL FLEXIBLE DEFORMABLE is a cement-based adhesive specially designed for installing ceramic tiles, porcelain stoneware, marble, stone, or similar materials whether small or large format, absorbent or non-absorbent on façades, large surface floors, radiant heating floors, and high-traffic areas, both indoors and outdoors.

COMPOSITION

Formulated with white or grey cement, selected aggregates, organic and inorganic additives, and resins that improve workability, water retention, and adhesion.

APPLICATION

Ideal for:

- Ceramic and porcelain tiles
- Marble and stone
- Small and large formats
- Absorbent and non-absorbent materials
- Façade cladding
- Large surface floors
- Radiant heating floors
- High-traffic areas
- Indoor and outdoor use

PROPERTIES

- Subject to rigorous quality control
- Complies with Spanish and European standards (UNE, EN)
- Guaranteed homogeneity through advanced dosing and weighing systems
- Easy to apply
- High adhesion to substrates
- Excellent water retention
- High flexibility and adhesion, with strong compressive and shear resistance
- Excellent performance on façades, resisting thermal shocks and minor structural movement.

SUITABLE SUBSTRATES

- Concrete and cement-based floors
- Interior and exterior mortar renderings.

SUBSTRATE CONDITIONS

Substrates must meet the following conditions:

- Must be strong 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.
- If exposed to sun or highly absorbent, moisten the substrate beforehand.
- For old non-absorbent flooring, apply a primer.
- Do not apply on substrates with moisture above 3%.
- For other substrates or uncertain adhesion, contact Technical Support: +34 964 343 300 or comercial.forcol@origenmateriales.es.

CONSUMPTION

- Approx. 4.5 kg/m² for single bonding.
- Approx. 7 kg/m² for double bonding.
- Flatness variations may affect consumption.

PACKAGING

- Powder product in approx. 20 kg multi-layer paper bags with moisture-resistant bottom film
- Pallet: 1440 kg (72 bags), shrink-wrapped for rain protection (simple wrapping in summer)
- Available in white and grey (color indicated on all sides of the bag).

STORAGE

12 months from manufacturing date in original sealed packaging, stored in a cool, ventilated, dry place.

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 FLEXIBLE DEFORMABLE with approx. 22% water (4.2–4.6 L per 20 kg grey bag) or 23% (4.4–4.8 L per 20 kg white bag)
2. Stir manually or mechanically until a lump-free, homogeneous paste is obtained (use a slow electric mixer at 500 rpm; slower speeds introduce air and reduce strength)
3. Let the mix rest for 5 minutes, then homogenize again
4. Use full bags, add the same amount of water, and mix all at once for consistent mortar
5. Apply with a notched trowel in small areas from bottom to top to regulate thickness; ensure mortar ridges retain their shape
6. Place tiles and press from top to bottom until ridges are flattened and product is evenly distributed; for very smooth or highly grooved backs, apply adhesive to the back of the tile as well

PRECAUTIONS / RECOMMENDATIONS

- Respect mixing water ratio to avoid shrinkage and poor adhesion; re-stir to restore consistency
- In extreme conditions (high temperatures, strong winds), check for surface film formation; remove by re-troweling; never moisten with water (creates anti-adhesive layer)
- Protect tiles from expansion/contraction with proper joint treatment
- Prevent water ingress between tile and substrate; use cornices, drip edges, etc.
- Wind reduces open time and adhesion
- Do not use in presence of standing water
- Double bonding recommended for tiles with sides over 30 cm
- For vertical applications: max weight 40 kg/m², max format 40x60x1.5 cm
- For formats over 50x40 cm or weights over 30 kg/m², mechanical anchors are recommended
- Press tiles firmly to ensure full contact and avoid voids
- On façades, create expansion and perimeter joints, and respect structural joints
- For radiant heating floors, turn off heating 24 hours before installation
- Periodically check tackiness by lifting a tile
- Installation quality depends heavily on workmanship and substrate conditions.

TECHNICAL DATA

Classification: UNE-EN 12004	C2TES1
Mixing water (grey):	22 ± 1%
Mixing water (white):	23 ± 1%
Application temperature:	5 - 30 °C
Powder density:	1,4 ± 0,05 Kg/L
Paste density:	1,6 ± 0,05 Kg/L
Initial adhesion:	≥ 1 N/mm²
Adhesion after water immersion:	≥ 1 N/mm²
Adhesion after heat aging:	≥ 1 N/mm²
Adhesion after freeze-thaw cycles:	≥ 1 N/mm²
Slip:	≤ 0,5 mm
Deformability:	≤ 2,5 mm and ≤ 5,0 mm
Open time:	30 minutes
Adjustment time:	≤ 30 minutes
Pot life:	90 minutes
Joint filling:	24 hours
Walkable:	48 hours
Full curing:	14 days
Rest time after mixing:	5 minutes
Max application thickness:	10 mm
Fire resistance:	Class A1

The following tables indicate the maximum tile dimension (longest side) permitted for the application of the adhesive, in accordance with the UNE 138002:2023 standard.

FLOOR COVERINGS

Support type	Interior residential and public floors	Interior commercial or industrial floors subject to mechanical loads	Exterior floors	Criterion
Cement-based or calcium sulfate[1] (anhydrite) screed without underfloor heating	> 120[2]	> 120	-	Longest side of the tile (cm)
Cement-based or calcium sulfate[1] (anhydrite) screed with underfloor heating	≤ 90	≤ 90	-	
Directly on concrete slab / concrete base / raft foundation	≤ 120	≤ 90	≤ 60	
Existing floor covering (ceramic tiles / mosaic / terrazzo / natural stone)	≤ 90	≤ 120	≤ 60	
Cement screed	-	-	≤ 60	

[1] Calcium sulfate (anhydrite) screeds require prior application of a primer to promote adhesion.

[2] For heights below 120 cm, this solution can also be considered.

WALLS AND CEILINGS

Type of Substrate	Interior Walls and Ceilings	Exterior Walls and Ceilings	Criterion
Lime/cement or gypsum plaster[1] without integrated heating	> 120[2]	-	Longest side length of the tile (cm)
Lime/cement or gypsum plaster[1] with integrated heating	≤ 90	-	
Gypsum plasterboards	≤ 120	-	
Directly onto concrete	≤ 120	≤ 30	
Existing covering (ceramic tiles / mosaic / hydraulic tiles / natural stone)	≤ 120	-	
Cement-based or fibre cement boards	≤ 120	≤ 30	
Large-format clay blocks	> 120[2]	-	
Timber substrates	≤ 90	-	
Cement/lime render	-	≤ 60	

[1] Gypsum-based plasters require the prior application of a bonding primer.

[2] For heights below 120 cm, this solution may also be considered.

CERAMIC TILE COVERINGS

Type of substrate	Without fiber	With fibers[1]	Criterion
Interior floors and floor coverings	> 60[2]	≤ 60	Length of the side greater than the tile (cm)

[1] Please consult our technical sales service to check the compatibility of the fibers with our cementitious adhesives.

[2] For heights less than 60 cm, this solution can also be considered.

SWIMMING POOL TILE COVERINGS

Type of pool / substrate	Type of pool	Intermediate layers	Length of the side greater than the tile (cm)
Reinforced concrete, shotcrete (gunite) or masonry walls.	Pool shell	Plaster / reapplied mortar	> 30[3]
Reinforced concrete, shotcrete (gunite) or masonry walls.	Pool shell	Sheet waterproofing membrane[2]	> 30[3]

[1] Not valid in the case of ceramic tile coatings.

[2] The sheet waterproofing membrane must be compatible with pool applications and installed according to the manufacturer's instructions.

[3] For heights less than 30 cm, this solution can also be considered.

Forcol® Simetría

ÉMISSIONS DANS L'AIR INTÉRIEUR* A+ A+ A B C

* Information sur le niveau d'émission de substances volatiles dans l'air intérieur, présentat un risque de toxicité par inhalation, sur une échelle de classe allant de A+ (très faibles émissions) à C (fortes émissions).

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EN 12004:2007+A1:2012
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DP 07-12004

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