



# MONOTACK FLEX

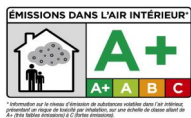
Cement-based adhesive for tiles

CE marking:

- EN 12004-1 - Designation: C2TES1

Certifications:

- VOC - Decreto francese 321/2011 - Classe: A+



## TECHNICAL SPECIFICATIONS



## FIELD OF APPLICATION

## APPLICATIONS



## Description

MONOTACK FLEX is a mono-component adhesive for tiles made with cement, selected-grain quartz sand, resins and special additives.

MONOTACK FLEX is suitable for bonding when applied over stoneware, clinker, terrazzo tiles, etc. and is designed for application in interiors and exteriors, for adhesive layers up to 5 mm thick.

MONOTACK FLEX can be prepared by mixing with the sole addition of clean water when applied. In addition to being highly workable, the product features high adhesiveness and thixotropy, and excellent open time and can be applied on both walls and floors.

Once cured, MONOTACK FLEX boasts excellent frost resistance.

## CE marking

- ▶ EN 12004-1 + EN 12004-2

MONOTACK FLEX fulfils the requirements of the EN 12004-1 standard "Adhesives for ceramic tiles - Part 1: Requirements, evaluation and verification of the performance persistence, classification and marking" and of the EN 12004-2 standard "Adhesives for ceramic tiles - Part 2: Test methods", with the following designation:

→ C2TES1

- Improved (2) cementitious adhesive for laying on floors and walls, in interiors and exteriors.
- Adhesive with reduced slip (T).
- Adhesive with extended open time (E).
- Deformable adhesive (S1).

## Certifications

- ▶ VOC - Decreto francese 321/2011 - Classe: A+

MONOTACK FLEX soddisfa i requisiti relativi all'emissione di VOC in ambienti interni, secondo la French Regulation (Decreto n° 2011-321 del 23 marzo 2011 e della Delibera del 19 aprile 2011), rientrando in classe A+ (emissione molto bassa).

## Colour

MONOTACK FLEX is available in the following versions:

- white
- grey

## Field of application

- ▶ MONOTACK FLEX can be used on the following laying supports:

- For indoor walls and ceilings, on conventional two-coat plaster or painted plaster substrates, after checking the adhesion of the paint.

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- Plasterboard (rigidly supported).
- Ready-made or conventional screeds and self-levelling cement screeds.
- Gypsum, wood and anhydrite screeds, prior treatment with RICRETE 1C.
- Exterior walls coated with cement plaster or mortar.
- Indoor or outdoor floors, and sufficiently seasoned sand and cement screeds (e.g. 45 days for 6 cm-thick screeds).
- Radiant floors with cement screed.
- Radiant floors with anhydrite screed or gypsum fibre slabs, prior treatment with RICRETE 1C.
- Tiled floors (superimposed bonding).

► MONOTACK FLEX is suitable for laying:

- Single-fired and double-fired ceramic tiles (of every type and size, up to 15 mm thick) both indoors and outdoors.
- Stoneware, porcelain stoneware and clinker tiles.
- Cotto.
- Ceramic and vitreous mosaics on meshes.
- Insulating panels made of EPS or XPS expanded polystyrene, expanded polyurethane, rock wool, glass wool (point adhesion).
- Sound-absorbing panels type Eraclit® etc. (point adhesion).

► MONOTACK FLEX is not suitable for bonding on:

- High-shrinkage concrete such as, for example, thin industrial floors;
- Substrates subject to excessive movement.
- Linoleum and PVC without having first verified the adhesion on the support. In case of a positive outcome, wash the coating with STRIPPER and prime it with RICRETE 1C.
- Rubber floors.
- Galvanised or aluminium sheets.

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## General preparation of the laying support

- Thoroughly clean the substrate by removing any loose parts, oil, grease, paint and anything else that may prevent proper adhesion; wait for the support to dry before applying the adhesive.
- Verify that new supports have cured correctly: screeds must have terminated their hygrometric shrinkage and plasters must have been made by at least 15 days (for 2 cm thickness).
- To accelerate the curing of a new sand and cement screed, add FAST FLUID 300 to the mix.
- If thin coverings are bonded, the fractionation joints made during the cast can be eliminated with stitching (see technical sheet of BETONGUAINA).
- Any moving cracks must be eliminated through stitching.
- In case of dampness in the support exceeding 5% (measured with the carbide method, ASTM D4944), treat the support with SOLID.
- If the substrate is subject to rising damp, apply Q-PRIMER and Q-RASANTE sprinkled until saturation with 0.3–0.9 mm NATURAL QUARTZ sand and then sand and dedust the surface.
- In case of supports with superficial chalking, consolidate the support with SW SOLID diluted with 5 parts by weight of water.
- In case of supports with evident signs of chalking, even deep down, the day before applying the adhesive, consolidate the surface with NORPHEN FONDO IGRO by sprinkling 0.1–0.6 mm NATURAL QUARTZ on the wet surface.
- In case of bonding on top of old polished floors, the surface should be abraded with a diamond grinding cup.

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## Specific preparation of the laying support

► To smooth a laying surface IN INTERIORS

- On the wall, use RASANTE 1100 or 1200.
- On the floor, use LEVEL FINO for filling thicknesses up to 10 mm.
- On the floor, use LEVEL HB for filling thicknesses up to 30 mm.
- On the floor, on sloping surfaces, use GROVE PRIMER ECO and GROVE MASSETTO.

► To smooth a laying surface IN EXTERIORS

- On the wall, use RASANTE 1100, 1200 or RASANTE 2000 2K.
- For outdoor applications, use GROVE PRIMER ECO and GROVE MASSETTO.

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## Preparing the product

- Pour the mix water (7.25 l/bag for GRIGIO; 7.0 l/bag for BIANCO) into a suitable service container.
- Add the powder adhesive.
- Mix using a low-speed mixer (500–600 rpm) until obtaining a homogeneous lump-free mixture. • During this phase, the product appears to be very dense, as if it were lacking water: this is normal for MONOTACK FLEX.
- DO NOT ADD WATER and wait 5–7 minutes.
- After 5–7 minutes, mix the mixture again until obtaining a paste of adequate consistency that is ready for being applied.

## Application of the product

### ► Application of the adhesive

- For effective wetting of the laying substrate, always apply a thin homogeneous layer of adhesive with the smooth side of the trowel.
- Apply the desired thickness using a notched trowel suited to the size of the tiles, as explained below.

### ► Choice of the trowel and thickness adjustment

- Mosaics and small formats → TROWEL no. 4
- Sizes up to (30x30) cm → TROWEL no. 5
- Large sizes, over (30x30) cm → TROWEL no. 6.

### ► Joints

- Any fractionation joints should be made roughly every 25 m<sup>2</sup> inside and 10–12 m<sup>2</sup> outside.
- For corridors and balconies, consider placing a joint every 6–8 m of length.
- The structural and expansion joints of the supports must be lined up on the surface.

### ► Tiling

- In very hot summer conditions and when there is dust in the contact zone, wet the back of the tile slightly with water.
- Lay the tiles, applying pressure (even tapping them with a rubber mallet) so that the adhesive wets and adheres to the surface as much as possible.
- Always back-butter tiles larger than 25x25 cm that are subject to heavy loads, immersed in water or laid outdoors.
- Complete the registration within 60 minutes.

### ► Checks on the mix

- Adverse weather conditions such as beating sunlight, dry wind, high temperatures, etc. and absorbent substrates can lower the open time of MONOTACK FLEX even by a few minutes.
- In these conditions, continuously check whether the adhesive is still fresh, is able to wet the coating and that no film has formed on the surface: otherwise, mix the product again and re-apply it using the notched trowel. Do not add water to the mix.

## Consumption

type of application	minimum consumption	maximum consumption	UoM	dilution
All surfaces and materials to be bonded	2	5	kg/m <sup>2</sup>	-

Nevertheless, do not exceed 7–8 kg/m<sup>2</sup>.

## Cleaning of tools

- Wet product: clean with water (including a power wash).
- Hardened product: remove mechanically.

## Useful application tips

- Do not apply MONOTACK FLEX on supports that are too hot due to the high summer temperatures. In such case, wet the surface with water to cool it and apply the product preferably in the afternoon.

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- Do not apply MONOTACK FLEX on frosted surfaces or surfaces that are expected to frost within the next 24 hours.
- Do not apply MONOTACK FLEX directly on substrates made with gypsum and anhydrite, but only after first treated them with RICRETE 1C.
- If the area is subject to frequent wetting with water (bathrooms, showers, etc.), coat the substrate with NORTIG 15, NORTIG 15 FIBRATO or BETONGUAINA BASEMENT before applying the adhesive.
- The ideal product for grouting a covering bonded with MONOTACK FLEX is COLORFILL FLEX.

## Technical data

► PRODUCT IDENTIFICATION DATA	UoM	value
Consistency	-	powder
Solid residue	-	100 %

► APPLICATION DATA AND FINAL PERFORMANCES	UoM	value
Mix water (GRIGIO version)	-	29 %
Mix water (BIANCO version)	-	28 %
Density of the mix, EN 1015-6	kg/L	1,75 ± 0,05
Pot-life of the mix	hours	> 8
Open time, EN 12004-2	min	> 30
Application temperature	°C	from +5 to +40
Operating temperature	°C	from -30 to +90
Registration time	min	60
Minimum curing time for grouting (on wall)	hours	4 - 8
Minimum curing time for grouting (on floor)	hours	24 - 36
Walk-over time (at +23°C)	hours	24 - 36
Minimum commissioning time (at 23°C, 50% R.H.)	days	12 - 14

► TECHNICAL DATA IN CONFORMITY TO EN 12004	UoM	value
Compressive strength (at 28 days), EN 1015-11	MPa	10,0 ± 0,2
Flexural strength (at 28 days), EN 1015-11	MPa	3,5 ± 0,1
Transversal deformation, EN 12002	-	deformable (S1)
Initial tensile adhesion at 28 days (GRIGIO version), EN 12004-2	MPa	1,5 ± 0,1
Initial tensile adhesion at 28 days (BIANCO version), EN 12004-2	MPa	1,4 ± 0,1
Tensile adhesion after thermal ageing (GRIGIO version), EN 12004-2	MPa	1,4 ± 0,1
Tensile adhesion after thermal ageing (BIANCO version), EN 12004-2	MPa	1,1 ± 0,1
Tensile adhesion after immersion in water (GRIGIO version), EN 12004-2	MPa	1,1 ± 0,1
Tensile adhesion after immersion in water (BIANCO version), EN 12004-2	MPa	1,1 ± 0,1
Tensile adhesion after freeze-thaw cycles (BIANCO version), EN 12004-2	MPa	1,2 ± 0,1
Fire reaction (Euroclass) for thicknesses below 20 mm, EN 12004-1, Par. 4.4.3	-	E WFT

## Storage of the product

- 12 months in the closed original packaging, in a dry and covered place away from direct sunlight, at a temperature between +5°C and +35°C.
- Protect the product against humidity.

## Packages

VARIANT	PACKAGE	ADR	PACKAGES PER PALLET	COMPONENTS
BIANCO	25 kg bag	NO	48 sacchi	
Grey	25 kg bag	NO	48 sacchi	

Legenda ADR:

NO = merce NON PERICOLOSA

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## LEGAL NOTES

Advice on how to use our products corresponds to the current state of our knowledge and does not involve the assumption of any guarantee and / or responsibility for the final result of the work. They do not refore exempt the customer from the responsibility of verifying the suitability of the products for the use and the prefixed purposes through preventive tests. The website [www.nordresine.com](http://www.nordresine.com) contains the latest revision of this datasheet.

## EDITION

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