



## PK 170

High-performance ready-to-use paste adhesive for laying tiles also suitable for damp zones



CE marking:

- EN 12004-1 - Designation: D2TE
- EN 12004-1 - Class: E WFT

### TECHNICAL SPECIFICATIONS



### APPLICATIONS



### Description

PK 170 is a mono-component paste adhesive consisting of an aqueous dispersion of modified acrylic resins, selected-grain sand and special additives.

PK 170 is ready to use. The product appears like an easily workable viscous paste with high adhesion and bonding strength, a particularly long open time and zero vertical slip.

After the curing process, which occurs by coalescence of the dispersion and through the evaporation of the water contained in it, PK 170 will be:

- High flexibility.
- Considerable bonding strength, even initial, on freshly laid tiles.
- Excellent resistance to vibrations and deformation of the support.

### CE marking

- ▶ EN 12004-1 + EN 12004-2

PK 170 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:

→ D2TE

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

### Advantages

- PK 170 is ready-to-use.
- PK 170 is stored in the package closed after partial use.
- PK 170 is easy to spread.
- PK 170 possesses an extremely high bonding strength, even with very short curing times.

### Colour

PK 170 is available in the following versions:

- white

### Field of application

▶ PK 170 can be used for bonding – indoors and outdoors – absorbent tiles and ceramic mosaics on walls and floors, on the following laying supports, without primer, PROVIDED THAT ONE OF THE TWO SURFACES IS ABSORBENT:

- Plasterboard.
- Fibre cement.

## PK 170

- OSB chipboard panels.
  - Engineered wood panels.
  - XPS panels.
  - Unfinished aluminium glued on the absorbent surface.
  - Traditional supports on walls or floors of bathrooms and showers.
  - Sand and cement, gypsum or anhydrite screeds.
  - Concrete.
- ▶ PK 170 is suitable for laying:
- Single-fired and double-fired ceramic tiles.
  - Ceramic mosaics.
  - Stoneware, porcelain stoneware and clinker tiles.
  - Cotto.
  - Insulating panels (such as expanded polystyrene, expanded polyurethane, rock wool, glass wool) and sound-absorbing panels type Eraclit®, etc. (point adhesion).
- ▶ PK 170 is not suitable for bonding:
- Stoneware tiles on stoneware.
  - Stoneware tiles on a glazed surface.
  - Stoneware tiles on steel or aluminium surfaces.
  - Aluminium on non-absorbent support.
- ▶ PK 170 is not suitable for bonding on:
- Damp concrete.

---

### 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.

---

### 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.
  - On the floor use GROVE PRIMER ECO and GROVE MASSETTO.

# PK 170

## Preparing the product

PK 170 is ready to use.

## 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 where the substrate and the back of the tile make contact, wet the support slightly with water; do not wet the back of the tile.
- 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 15 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 PK 170 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: the adhesive must be removed and re-applied fresh.
- Do not add water to the adhesive.

## Consumption

type of application	minimum consumption	maximum consumption	UoM	dilution
Bonding of ceramic tiles	1	5	kg/m <sup>2</sup>	-
Bonding of insulating materials	0,5	3	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 PK 170 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.
- Do not apply PK 170 on frosted surfaces or surfaces that are expected to frost within the next 24 hours after application.
- Do not apply PK 170 directly on substrates made with gypsum and anhydrite, but only after first treated them with RICRETE 1C.
- Do not subject the coverings bonded with PK 170 to intense washes in the first 7–10 days after application.
- Do not use PK 170 to bond non-absorbent tiles on non-absorbent supports.

# PK 170

- Do not use PK 170 to bond natural stone, especially calcareous or pale-coloured stone.
- The ideal product for grouting a covering bonded with PK 170 is COLORFILL FLEX.

## Technical data

► PRODUCT IDENTIFICATION DATA	UoM	value
Consistency	-	dense paste
Density of the mix, EN 1015-6	kg/L	1,60 ± 0,05
► APPLICATION DATA	UoM	value
Open time, EN 12004-2	min	35
Application temperature	°C	from +5 to +35
Operating temperature	°C	from -20 to +80
Registration time	min	15
Minimum curing time for grouting (on wall)	hours	24
Minimum curing time for grouting (on floor)	hours	24 - 48
Walk-over time (at +23°C)	hours	24 - 36
Minimum commissioning time (at 23°C, 50% R.H.)	days	7
► APPLICATION DATA AND FINAL PERFORMANCES	UoM	value
initial tensile adhesion at 28 days, EN 12004-2	MPa	4,09 ± 0,05
initial tensile adhesion after 35 minutes of curing, EN 12004-2	MPa	0,54 ± 0,03
initial tensile adhesion after 24 hours of curing at (+3.0±0.5)°C, EN 12004-2	MPa	0,53 ± 0,03
initial tensile adhesion after 48 hours of curing at (+3.0±0.5)°C, EN 12004-2	MPa	0,64 ± 0,03
initial tensile adhesion after 6 days of curing at (+3.0±0.5)°C, EN 12004-2	MPa	0,96 ± 0,03
initial tensile adhesion after 12 days of curing at (+3.0±0.5)°C, EN 12004-2	MPa	1,41 ± 0,03
initial tensile adhesion after 19 days of curing at (+3.0±0.5)°C, EN 12004-2	MPa	1,78 ± 0,03
► TECHNICAL DATA IN CONFORMITY TO EN 12004	UoM	value
Cross-cut adhesion (initial), EN 12004-2	MPa	2,60 ± 0,05
Cross-cut adhesion (after immersion in water), EN 12004-2	MPa	2,60 ± 0,05
Cross-cut adhesion (after thermal ageing), EN 12004-2	MPa	0,60 ± 0,05
Cross-cut adhesion (at high temperature), EN 12004-2	MPa	2,60 ± 0,05
Fire reaction (Euroclass) for thicknesses below 5 mm, EN 12004-1, Par. 4.4.3	-	E WFT

## Storage of the product

- 24 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 frost.

## Packages

VARIANT	PACKAGE	ADR	PACKAGES PER PALLET	COMPONENTS
-	fustino da 5 kg	NO	120 fustini	
-	fustino da 15 kg	NO	44 fustini	

Legenda ADR:

NO = merce NON PERICOLOSA

## 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.

# PK 170

## EDITION

Issue date: 10.10.2015

Revision: 20.06.2018