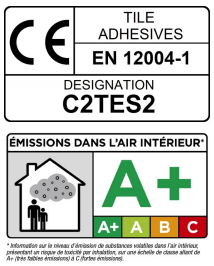
# BETON H1

Cement-based adhesive for tiling on liquid-applied membranes. Suitable for outdoor use.



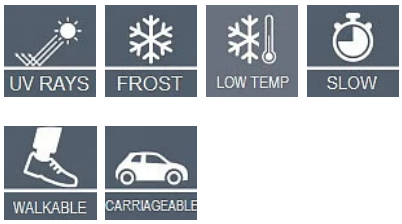

**CE marking:**

→ EN 12004-1 • Designation: C2TES2

**Certifications:**

- VOC - French Decree nr 321/2011 - Class: A+


**SPECIFICATIONS**




**FIELD OF APPLICATION**


**APPLICATIONS**


## Description

BETON H1:
• is a one part tile adhesive consisting of cement, sands of selected grain size, resins and special additives.
• It is prepared by mixing with the sole addition of water at the time of installation.
• It is easy to work with and, after maturation, excellent resistance to frost.
• It is designed for adhesive thicknesses up to 15 mm and for small, medium and large format tiles.

## CE marking

**► EN 12004-1 + EN 12004-2**

BETON H1 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 t

→ *C2TES2*

• Improved cementitious adhesive (C) (2) for wall and floor installation, indoors and outdoors.
• Adhesive with reduced slip (T).
• Adhesive with extended open time (E).
• Highly deformable adhesive (S2).

## Certifications

**► VOC - French Decree nr 321/2011**

BETON H1 meets the requirements for VOC emissions in indoor environments according to the French Regulation:

→ *A+*

## Colour

The product is available in gray color.

## Field of application

• BETON H1 is the specific adhesive for the installation of ceramic floors and walls on waterproofing

VIA FORNACE VECCHIA, 79
31058 SUSEGANA (TV) - Italy
Tel +39 0438 437511
www.nordresine.com
info@nordresine.com

# BETON H1

membranes made with BETONGUAINA, BETONGUAINA. S, E.P.LASTIK, NORTIG and similar.
• BETON H1 is suitable for installation with adhesive thickness up to 15 mm.
• BETON H1 is suitable for gluing tiles of all types, even very large formats.
► Types of laying substrate
• Terraces, flat roofs and balconies waterproofed with BETONGUAINA, BETONGUAINA.S, E.P.LASTIK, NORTIG and other polymer dispersion systems.
• Plasterboard, fibre cement walls and concrete blocks.
• External walls made of plaster or mortar.
• Premixed or traditional cementitious screeds and self-levelling cementitious screeds.
• Gypsum, anhydrite screeds, wood, after treatment with RICRETE 1C.
• Concrete.
• Radiant floors with gypsum fibre slabs, after treatment with RICRETE 1C.
• Floors that are already tiled.
► Types of bondable materials
• Single- or double-fired ceramic tiles.
• Stoneware, porcelain stoneware and clinker tiles, of any size.
• Ceramic and glass mosaics on mesh.
• Stone material (moisture resistant).

**General preparation of the laying support**

• Carry out a thorough cleaning on all substrates and remove inconsistent parts, oils, greases, paints and anything that may prevent correct adhesion of the adhesive.
• Make sure that the substrates do not have rising damp.

**Specific preparation of the laying support**

► *Substrates with rising damp*
• In the event of rising damp, spring it with Q-PRIMER, Q-SKIM COAT.
► *Substrates with chalking*
• If the surface shows evident chalking in depth, proceed with consolidation with a solvent-based product such as NORPHEN FONDO HYGRO.
• If, on the other hand, the chalking is only superficial, consolidate with 1 coat of SW SOLID diluted 4-5 times in water.
► *Substrates on which liquid membrane has been applied (e.g. BETONGUAINA)*
• Carefully check the condition of the waterproofing layer before proceeding with installation.
► *Substrates on which liquid membrane has been applied (e.g. BETONSHEATH)*
• Carefully check the condition of the waterproofing layer before proceeding with installation.
• If it is necessary to reapply BETONGUAINA or BETONGUAINA S, proceed with the treatment of the area with a specific primer FONDO C60 (See Technical Data Sheet).
► *Treatment of screed control joints and cracks*
• The screed control joints and any cracks can be eliminated by stitching with a rod with improved adhesion fixed with PLAST EPO (See Technical Sheet).

**Preparing the product**

• Pour the mixing water (approx. 7.0 litres/25 kg bag) into a suitable serving container.
• Enter BETON H1 powder.
• Mix with a mixer at low speed (500 - 600 g/min) until the mixture is homogeneous without lumps.
• Let it rest for about 6 - 7 minutes.
• Stir the adhesive paste again.
• Proceed with the application.

**Application of the product**

# BETON H1

► *Applying the adhesive*

• When applying to liquid-applied membrane, the state-of-the-art instructions and particularities for laying large-format tiles must be followed.
• Installation of ceramic wall tiles outdoors must always include a compact and homogeneous layer of adhesive underneath the tile.
This prevents the build-up of water and the potential formation of ice between the laying surface and the tile. Double coating is, therefore, highly recommended.

► *Adhesive open time*

Theorical BETON H1 open time is about 30 minutes.
However, it must be considered that, in critical temperature conditions (wind and low atmospheric %RH) the open time can be reduced to half or even a third.
For this reason it is important to check frequently the status of the applied adhesive.
• While applying, make sure that no superficial film forms.
• If so, apply more fresh adhesive over the old one and mix them together.
• Do not wet with water.
• Do not add water to the adhesive once mixed.

► *Joints*

The following points of the tiled surface must be sealed with overpaintable moisture-curing polymer sealants (BETONSEAL MS 2.0) or with non-yellowing coloured moisture-curing sealants (NORDSEAL MS):
• The grouts at the screed control joints, suitably marked on the waterproofing membrane.
• The expansion joints of the tiled floor.
• The joint between the floor tiles and the skirting boards.

► *Grouting*

• Choose a grout suitable for the conditions of use of the flooring.
• NORD RESINE recommends to use deformable and waterproof grouts.
e.g. COLORFILL FLEX, cement-based grout (CE marking CG2) or EPOSEAL W, epoxy grout (CE marking RG-R2T).

## Consumption

| type of application | minimum consumption | maximum consumption | u.m. | notes |
|---|---|---|---|---|
| For beds up to 3 mm thick | 3,5 | 4,0 | kg/m² | (1) |
| For beds up to 9 mm thick | 11,0 | 11,5 | kg/m² | (1) |

*(1) Depending on the adhesive layer thickness. Yield: 1.25 kg/m² per 1 mm thickness..*

## Cleaning of tools

• Fresh product: cleaning with water (also hydrowashing).
• Hardened product: mechanical removal.

## Useful application tips

• Do not apply BETON H1 on frozen surfaces or in frosty conditions within 24 hours.
• Do not apply BETON H1 directly to gypsum and anhydrite-based substrates. In this case, pre-treat with RICRETE 1C.
• Apply preferably with a substrate temperature between +5°C and +40°C.
• Do not walk on tiles until they are set (usually in 24 - 36 hours)
• Wait 12 - 14 days for heavy use.

## Technical data

# BETON H1

| ► PRODUCT IDENTIFICATION DATA | | value |
|---|---|---|
| Consistency | - | Dust |
| Solid residue | - | 100% |

| ► APPLICATION DATA AND FINAL PERFORMANCE | | value |
|---|---|---|
| Bulk density of fresh mortar, EN 1015-6 | kg/L | 1,65 ± 0,05 |
| Particle size distribution, EN 933-1 | Mm | ≤ 0,315 |
| Mixing water (in %) | - | 27% - 29% |
| Pot life | Hours | > 8 |
| Adjustability time | Min | 50 |
| Application temperature range | °C | from +5 to +40 |
| Operating temperature | °C | -30 to +90 |
| Ready for grouting on walls | Hours | after 4 - 8 |
| Ready for grouting on floors | Hours | after 24 |
| Set to foot traffic (at 23°C, 50% RH) | Hours | after 24 - 36 |
| Ready for full use (at 23°C, 50% RH) | days | 12 - 14 |
| Frost sensitivity period (after application) | days | 4 - 5 |

| ► TECHNICAL DATA IN ACCORDANCE WITH EN 12004-1 + EN 12004-2 | | value |
|---|---|---|
| Compressive strength (28 days), EN 1015-11 | Mpa | 18,0 ± 0,3 |
| Flexural strength (28 days), EN 1015-11 | Mpa | 7,00 ± 0,08 |
| Initial tensile adhesion at 28 days, EN 12004-2 | Mpa | 2,30 ± 0,05 |
| Tensile adhesion after thermal ageing, EN 12004-2 | Mpa | 1,90 ± 0,05 |
| Tensile adhesion after immersion in water, EN 12004-2 | Mpa | 1,10 ± 0,05 |
| Tensile adhesion after freeze-thaw cycles, EN 12004-2 | Mpa | 1,80 ± 0,05 |
| Transverse deformation, EN 12002 | - | Highly deformable (S2) |
| Open time, EN 12004-2 | Min | 30,0 ± 0,5 |
| Reaction to fire (euro-class) for thickness less than 20 mm, EN 13501-1 (EN 12004 par. 4.4.2 – CWT) | - | A1 / A1fl |

## Product storage

• 12 months in the original closed packaging, in a dry, covered environment, protected from sunlight and at a temperature between +5°C and +35°C.
• The product is resistant to moisture.

## Packages

| VARIANT | PACKAGING | ADR | PACK / PALLET | COMPONENTS | *NOTE* |
|---|---|---|---|---|---|
| GREY | bag - 25 kg | NO | 48 bags | | |

***ADR legend:***

NO = NON DANGEROUS goods

P* = DANGEROUS goods packed in limited quantities (packaged as per Chap. 3.4 ADR)

SI = DANGEROUS goods

## LEGAL NOTES

Any advice concerning the methods of use of our products reflects the current state of knowledge and does not imply any guarantee and/or responsibility as to the outcome of the application. Consequently, the customer must verify the product's suitability for the intended use and purposes by testing the product in advance. The Internet website www.nordresine.com contains the latest revision of this technical sheet: in case of any doubts, verify the date of revision (where missing, use the date of issue) by consulting the "PRODUCTS" section.

# BETON H1

**EDITION**

Issue date: 03.01.2008
Revision: 30.09.2024