Beyem Comfort

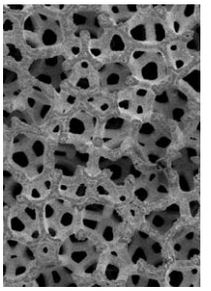
Extra-white geopolymer-modified and multiple consistency flexible adhesive with accelerated adhesion for secure bonding ceramic tiles and natural stone.

CE

EN 12004

GEOPOLIMERO
TECNOLOGIA

- ✓ Efflorescence control
- ✓ Excellent performance on underfloor heating and/or cooling
- ✓ Lower CO_2 footprint



Super absorbent polymer on modified sepiolite

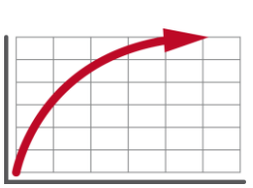
Provides an effective pore structure with "sponge" effect: the water is concentrated in the cavities of the adhesive, making a reserve and releasing it as needed. Allows the use of the adhesive in a wide range of consistencies and thickness thanks to the intelligent management of the mixing water.

DAP

CODE FOR A SUSTAINABLE BUILT ENVIRONMENT BREEAM

U.S. GREEN BUILDING COUNCIL LEED CERTIFIED USGBC

Pozzolanic effect



Accelerated adhesion

Indoor environment quality
Very low VOCs emissions

No harmful emissions

Certificate nº
QAI.MC.27/20
UNE-EN 16000-09

Free of radionuclides

FREE

Free of Radon
"Radiation-free Certificate"
IAF- Radioökologie GmbH

RODACAL BEYEM

About this product

BEYEM Comfort is an extra-white geopolymer-modified and multiple consistency flexible adhesive with accelerated adhesion for secure bonding ceramic tiles and natural stone. Formulated with geopolymer, selected aggregates of exceptional whiteness, pozzolan and last generation superabsorbent polymers that provide an exceptional workability, accelerated adhesions and an effective pore structure that translates into a superior wetting capability in a greater range of thickness and consistency of the adhesive. It does not cause settlement. Deformable and with no vertical slip. Resistant to mechanical stress in all its types (tensile strength, flexural strength, compression and shearing). Excellent durability (chlorides, CO2 penetration, sulfates, arid-alkali reaction and freeze-thaw cycles) thanks to its special formulation.
Indoor environment quality. Classifed as A+ class according to Décret nº. 2011-321 (France). Free of radionuclides.

Benefits

- Deformable
- Double open time
- Accelerated adhesion
- Lower CO_2 footprint
- Very low VOCs emissions
- Free of radionuclides
- Efflorescence control
- Excellent performance on underfloor heating and/or cooling
- Superior durability
- Wide range of thicknesses
- Suitable on plaster substrates
- Industrialized construction

Uses

Laying of ceramic tiles of low/medium/high absorption, natural stone, reconstituded stones, large format, vitreous mosaic, porcelain and stoneware tiles , etc ... in interior and exterior situations to walls and floors. Suitable for laying ceramic tiles and existing ceramic tile floors.
BEYEM Comfort is especially suitable for laying natural stone, since it significantly reduces the formation of efflorescence. Thanks to its geopolymer-based formulation, BEYEM Comfort exhibits excellent performance on underfloor heating and/or cooling compared to other conventional solutions. Applications on gypsum-based substrates without the need for prior priming.
Suitable for swimming pools.

Substrates

BEYEM **Comfort** is suitable for the following substrates , among others:

- Cement based substrates.
- Cement based renders /plasters and screeds. Concrete floors. Cement based waterproofing membranes.
- Plasterboards. Gypsum-based substrates.
- Cellular concrete.
- Compact natural stone, underfloor heating and existing ceramic substrates (overcoating)
- Use over other materials (wood, etc ...) with previous BEYEM PRO primer.

Preparation of substrates

Substrates must be clean, compact and free of substances that reduce adhesion such as dust, oil, grease and with no loose material.
Uneven areas must be corrected with suitable smoothing and finishing products. Substrates must be free from any rising damp and have already completed the curing period of hygrometric shrinkage. Dampen substrates with water to cool down if they should be too warm, in case of wind or over absorbent substrates and wait until the thin layer of water disappears.

Instructions for use

Mix manually of mechanically BEYEM Comfort with 6,5-8,0 l per bag of clean water until a homogeneous, creamy and lump-free paste is obtained. Let the mix stand for 5 minutes before application.
Small tiles must be fixed using a notched trowel of 6x6 mm. For tiles sizes greater than 400 cm2, a notched trowel 8x8 mm must be used and double spread technique when necessary. Bed the tiles firmly into the adhesive with a slight sliding and/or twisting action, to ensure a good contact and complete coverage.
Spread the mixed product on surfaces in such a way that the time available between the spread of the adhesive and the placement of the piece is less than the open time (40-50 minutes in normal conditions but may be reduced in conditions of high temperatures and/or winds). Unfavorable environmental conditions (strong sunlight, drying wind, high temperature as well as a highly absorbent substrate), could drastically reduce this time to a few minutes. It is good practice to lift an occasional tile after fixing, to verify that the required contact is being achieved. Back of the tile must be completely wet.

Technical Data

Product identity. Properties of mixture and application data

Appearance	Powder
Color	Extra-white
Bulk density	≈ 1250 Kg/m^3
Density of the mix	≈ 1550 Kg/m^3
Grading	0-500 µm
Mixing water,%	± 29%
Pot life	≈ 3-6 h (may vary according to environmental conditions)
Adjustability time (23ºC)	≥ 30 min
Grouting joints on walls (23ºC)	≈ 20 h
Thickness range	2-15 mm
Coverage per mm of thickness	≈ 1,25 Kg/m^2
Tariff code	3824.50.90.00

Final performances

Type	C2TES1
Initial tensile adhesion strength (EN 12004-2, 8.3) 72 h	≥ 1,0 N/mm^2 ≥ 0,50 N/mm^2
Tensile adhesion strength after water immersion (EN 12004-2, 8.3)	≥ 1,0 N/mm^2
Tensile adhesion strength after heat ageing (EN 12004-2, 8.3)	≥ 1,0 N/mm^2
Tensile adhesion strength after freeze/thaw cycles (EN 12004-2, 8.3)	≥ 1,0 N/mm^2
Extended open time (EN 12004-2, 8.1) 30 min 40 min	≥ 0,5 N/mm^2 ≥ 0,5 N/mm^2 ≥ 0,5 N/mm^2
Shear adhesion (Rodacal Beyem Method)	≥ 0,50 N/mm^2
Slip	≤ 0,5 mm
Transverse deformation	≥ 2,5 mm
Interval before use (23ºC) Foot traffic Heavy traffic Pools	 72 h 96 h 7-10 days
Total VOCs (28 days)	≤ 500 µg/m^3
Radioactivity index (U, Ra, Pb, Th, others)	I < 0,085

Cautions and recommendations

- Do not apply on plastic, metal or wood.
- Do not apply below 5°C or above 30°C.
- Do not apply when there is risk of frost, rain, strong wind or direct sunlight.
- According to UNE 138002 recommendations, leave joints with a minimum thickness of:
  - 1,5 mm in the case of tiles of good dimensional quality (table 27 annex C), indoors, on stable supports and on floors without mechanical requirements
  - 3 mm in the case of large format tiles, on stable substrates and intermediate layers and on floors without mechanical requirements
  - 5 mm in the case of tiles with little dimensional regularity, on all types of supports, indoors or outdoors, or in cases of coatings with special features.

  Grout with BEYEM JUNTA UNIVERSAL, BEYEM ADVANCE or BEYEM JUNTA – E.
- On floors with a surface area greater than 30 m^2 , it is recommended to leave separation or sealing joints filled with a deformable material.
- On interior floorings larger than 15 m^2, it is advisable to keep a free perimeter expansion joint between the floor and the wall or pillar, hidden by a skirting board (of approximately 5 mm).
- On facades and external cladding, the material should always be fixed with anchors or mechanical fixing, when some of the following conditions apply format above 900 cm^2, one side of the largest piece is larger than 60 cm, weight above 40 kg/m^2 and/or height of tiling up than 3 meters.
- Existing ceramic tile/natural stone requires preliminary treatment. It is essential to clean the surface beforehand.
- Underfloor heating/warming: the heating must be off and should be turned on gradually at least 5 days after tiling and grouting.
- The temperature, ventilation, and absorption of the substrate and covering materials, may vary the adhesive workability and setting times.

Packaging

BEYEM Comfort is packed 25 kg plastic lined paper bags.
Storage: when stored unopened in a cool dry place, shelf life is 12 months from date of manufacture

Cleaning tools

Tools can be cleaned easily with water before the product hardens. Hardened product can be removed only mechanically.

Health and Safety

For further and complete information about the safe use of our product please refer to our latest version of the Safety Data Sheet, which is available upon request.
Disposal of the product and packaging must be in accordance with current legislation. This is responsibility of the final product user.

Project specification

Laying of ceramic tiles, reconstituted stone, large format, vitreous mosaic, porcelain and stoneware tiles, marble or natural stone, etc ... must be carried out with extra-white geopolymer-modified, flexible and multiple consistency adhesive with accelerated adhesion compliant with EN 12004 - class C2TES1, such as Beyem Comfort, manufactured by Rodacal Beyem company. The substrate must be compact, free from any flaky, loose parts and must be clean and cured, having already completed the shrinkage stage. Existing joints must be respected, and elastic fractionizing and perimeter joints must be created. Ceramic tiles must be laid with joint-gap spacers with a width of ___ mm.

Certifications

ER-1089/1999 IDI-0004/2012

Contact

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Note

Product for professional use
The above guidelines and information is accurate to the best of our knowledge and is offered in good faith. This information is true and accurate, but as conditions of use and any labour involved are beyond our control, the end user must satisfy himself by prior testing that the product is suitable for his specific application, and no responsibility can be accepted, or any warranty given by our Representatives, Agents or Distributors. End user should ensure that he has our latest literature, copy of which will be sent upon request.
de la Ficha Técnica u Hoja de Datos, copia de las cuales se mandará a quien la solicite.