

# C2+

Elevated content of special polymers of a new generation, frost proof and zero vertical sliding

- Ideal for laying large size ceramic tiles from top to bottom even with heavy tiles
- Ideal for exterior application
- Ideal for the application of heavy mosaics
- Ideal for the application of thick floor coverings
- Ideal for porcelain stoneware
- Ideal for large sizes
- Elevated flexibility
- Can be spread in a layer of up to 15 mm
- Extended open time 1
- Conforms to EN 12004, C2 TE S1
- (€





## **TECHNICAL FEATURES:**

Highly flexible and thixotropic fibro reinforced adhesive in white or grey. Elevated content of special polymers of a new generation, frost proof and zero vertical sliding. It can also be used to lay large size ceramic tiles from top to bottom even on smooth and non-absorbent sub bases. Ideal for overlapping and large sizes, even on heated screed with warm water or electrical resistance. Adhesive classification: EN 12004 C2 TE S1.

## AREAS OF APPLICATION:

Laying of gres tiles, single-fired non-absorbent tiles and natural stone, stable at humidity in:

- Interior and exterior wall and floor
- Rooms subject to heavy and severe stress
- Public and private swimming poools
- Laying of high thickness floors

# CONTRACT ITEM SPECIFICATIONS:

Ceramic floors and walls must be applicated with a one-component, cementitious adhesive, highly thixotropic and highly flexible, applicable with trowel in thickness up to 15 mm, conforming to norm EN 12004 class C2TE S1 as C2+ by Benfer.



TECHNICAL ASSISTANCE



INSURANCE GUARANTEE



TECHNICAL MEETINGS



PROFESSIONAL USE



#### SUITABLE SUBSTRATES:

- Concrete
- Cement-based screeds, standard or heated with water system or electric resistance
- Cement-based plaster
- Flexible waterproofing membranes made up of concrete and polymers (ACQUASHIELD-2KF)
- Concrete blocks

## INSIDE ONLY:

- Fluid cement-based screeds (prior application of an appropriate primer if demanded), standard or heated with water system or electric resistance
- Fluid anhydrite-based screeds (prior application of an appropriate primer), standard or heated with water system or electric resistance
- Old ceramic tiles (prior application of an appropriate primer if demanded)
- Standard or waterproof plasterboard
- Elastomeric waterproofing membranes (ACQUASHIELD-GEL)
- Wooden boards (prior application of an appropriate primer)

## **MAXIMUM SIZES:**

- Internal floors with maximum length of longest tile side up to 360 cm
- External floors with maximum length of longest tile side up to 120 cm
- Internal walls coverings with maximum length of longest tile side up to 360 cm
- External walls coverings with maximum length of longest tile side up to 90 cm

Verify the limits of tile size according the type of coating and the substrate on the "selection guide" table.



#### METHODS OF USE:

# SUBSTRATES PREPARATION:

Foundations should be free from oils, greases or powders. Eventual painted surfaces must be in best condition, washed and degreased; in the contrary case, it is indispensable to eliminate accurately any paints from the plaster. When laying on old floors in porcelain, stoneware, marble or similar, make sure that they are well fixed to the ground, washed and de-greased. Do not use on substrates in gypsum and anhydrite or on particularly absorbent substrates without first treating them with BENFERPRIM.

#### MIXTURE PREPARATION:

Mix C2+ with 31% of water (pour the powder in the water and not vice versa) until you obtain a homogeneous, bright, plastic adhesive. Leave it rest for 5 minutes, and then re-mix rapidly. The adhesive is now ready for use and it must be used within 3 hours.

# APPLICATION:

INTERIOR: Lay the tiles by applying sufficient pressure that there is at least 95-100% contact between tile and adhesive.

EXTERIORS: contact must be 100% so as to prevent the infiltration of rainwater, which in the event of frost, could cause the tiles to detach. You are therefore advised to spread a layer of C2+ on the back of the tiles too.

We recommend this method for interior tiling, in the following cases:

- Floor tile sizes exceeding 500 cm<sup>2</sup> with tiles with absorption of less than or equal to 0.5% (e.g. porcelain tile)
- Floor tile sizes exceeding 1100 cm<sup>2</sup> with other types of tile
- Wall tile sizes exceeding 120 cm<sup>2</sup> with tiles with absorption of less than or equal to 0.5% (e.g. porcelain tile)
- Wall tile sizes exceeding 500 cm<sup>2</sup> with other types of tile
- Special applications such as industrial cold rooms, baths, swimming pools etc.

It is essential to leave a joint of at least 3 mm between each tile, and to ensure that the tiling conforms with the expansion joints of the structure to be elastically sealed, the joints between walls, and the joints between wall and floor. In any event, expansion joints or perimeter joints must be left about every 20 m².

# **FULL SERVICE:**

At 23°C and 50% of relative humidity the open time is of about 30 minutes. Under unfavourable conditions these time intervals reduce notably, therefore it is important to spread the adhesive gradually, using little quantities every time, and to verify often that it hasn't formed a superficial film before tiling. To make better the workability especially during the summer, it is useful to damp the working place and to eliminate the eventual currents of air. During the first 24 hours following the laying the adhesive cannot stand the frost. The floors laid with C2+ can be open to foot traffic cautiously after about 24 hours for grouting. They are ready for normal traffic after 7 days.



**CLEANING:** The cleaning of the coating must be effected by means of a damp cloth or sponge when the adhesive has already started to set and it can be done using greater quantity of water only after 48 hours from tiling.

PACKAGING: C2+ is available in 20 kg poly-lined bags and 1120 kg pallet loads.

STORAGE: In the original closed package in a cool dry place. SHELF LIFE: 12 months from the date listed on the package.

CONSUMPTION: It depends on the foundation and the type of trowel utilized.

Support	Tile surface	Laying System	Trowel type mm.	Consumption kg/m <sup>2</sup>
Interior floor	S < 1100	simple gluing*	8/10	4/5
	1100 <s<3600< td=""><td>double gluing</td><td>10/15</td><td>6/7</td></s<3600<>	double gluing	10/15	6/7
	3600 <s<10000< td=""><td>double gluing</td><td>20</td><td>8</td></s<10000<>	double gluing	20	8
Ext. floor	400 <s<1100< td=""><td>double gluing</td><td>8/10</td><td>5/6</td></s<1100<>	double gluing	8/10	5/6
	1100 <s<3600< td=""><td>double gluing</td><td>10/15/20</td><td>6/7/8</td></s<3600<>	double gluing	10/15/20	6/7/8
Interior wall	S<400	simple gluing	6	3,5
	400 <s<2000< td=""><td>double gluing</td><td>8/10</td><td>5/6</td></s<2000<>	double gluing	8/10	5/6
	2000 <s<3600< td=""><td>double gluing</td><td>10</td><td>6</td></s<3600<>	double gluing	10	6
Ext.wall	S<400	double gluing	6	4,5
	400 <s<2000< td=""><td>double gluing</td><td>8/10</td><td>5/6</td></s<2000<>	double gluing	8/10	5/6
	2000 <s<3600< td=""><td>double gluing</td><td>10</td><td>6</td></s<3600<>	double gluing	10	6

<sup>\*</sup> in U4 P4S and double gluing pools

## PRODUCT TECHNICAL DATA

TROBOCT TECHNICAL BANA				
Classification EN 12004: Basis: Colour: Apparent mass volume: Maximum grain size: Storage and Duration: Danger of toxicity: presence Inflammable: Mixture ratio: Mixture consistency: Density of paste: Application temperature: Open time: Vertical sliding to EN 1308: Maximum thickness application: Foot traffic after: Grouting: Full service: Final hardening: Adhesion (after 28 days): Adhesion after warming: Adhesion after frost-thaw cycles: Deformability according EN 12004: Temperature resistance:	C2TES1 Cement, aggregates, additives White, Grey 1,2 kg/dm³ 0,5 mm 12 months in the original closed package in a cool dry place No. the product may cause irritation to the eyes and skin due to of cement. No 31 %- 6,2 lt water/20 kg bag Creamy 1,6 kg/dm³ From + 5°C to + 35°C 30 minutes* < 0,5 mm 15 mm 12 hours* 12 hours 7 days* 28 days* > 1,0 N/mm² > 1,0 N/mm² > 1,0 N/mm² > 1,0 N/mm² 2,9 mm From -30°C to +90°C			
	* at +23° C and 50% relative humidity			

PLEASE: The information given in this chart is based on our best experience and indicative only. It must in any event be verified by the end user, who assumes all liabilities deriving from utilization of the product.

