

C2 +

HIGH RESISTANCE FLEXIBLE ADHESIVE
NO VERTICAL SLIPPING
FREEZE RESISTANT



TECHNICAL FEATURES:

C2+ is a very thixotropic adhesive in powder, composed of high resistance cement, selected quartz with grain size less than 0.3 mm, synthetic resins and special new conception additives. Its formulation has been conceived and developed to lay all ceramic materials rapidly and securely, even from the top downwards, and on foundations that are non-absorbent or subject to slight size variations.

FIELDS OF APPLICATION:

- Laying from the top downwards of porcelain stoneware, non absorbent single-fired tiles and large natural stones
- Laying on the floor or the wall of thick porcelain stoneware and marble mosaics
- Laying of extra-thick flooring



- Laying of indoor and outdoor flooring and covering in ceramics of all types, even on heated floors with hot water piping or electric heating elements.

- Laying of flooring and covering that must support critical environmental situations

-indoors: maximum tile surface equal to 6,000 square centimetres. For wall or heated floor coverings the maximum tile surface of 3,600 square centimetres.

-outdoors: maximum tile size of 2,000 square centimetres.

METHOD OF USE AND

CONTRA-INDICATIONS:

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, scagliola and anhydrite or on particularly absorbent substrates without first treating them with **Benferprim**.

It is indispensable always to leave a joint of at least 3 mm between tile and tile, and for laying wall tiles it is necessary to respect the expansion joints of the structure, which should be filled up elastically, and the joints between wall and wall and between wall and floor. In any case it is necessary to leave dilation joints or perimetric joints every 20 m².

PREPARATION OF THE MIXTURE:

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.

TILING

INTERIOR: Lay the tiles while exerting a good pressure on the tiles surface, so that contact between tile and adhesive will be at least of 90% of their surface for wall coatings and of 95-100% for floor.

EXTERIOR: The contact between tile and adhesive must be 100% so to avoid the eventual rain infiltrations that in case of frost could cause the detachment of the tiles. Therefore, it is suggested to spread also a layer of **C2+** on the back of the tiles.

We suggest to do the same think indoor for:

- floor tiles largest than 1600 cm² with water absorption of the tiles $\geq 0.5\%$ (e.g. porcelain tiles)
- wall tiles largest than 300 cm² with water absorption of the tiles $\geq 0.5\%$ (e.g. porcelain tiles)
- wall tiles largest than 500 cm² with all the other types of tiles
- special applications such as industrial refrigerators, basins, swimming pools, etc.

At 23° 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 14 days.

COVERAGE:

It depends on the foundation and the type of trowel utilized. For smooth foundation and adhesive thickness of 5-6 mm the coverage of **C2+** is 4 kg per m² and it increases to 0,5-1 kg per m² for rough foundations.

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 original packs properly sealed and protected against frost, sunlight and humidity.

the package; in conformity with the directive 2003/53/CE informing that this time expiration regards the efficiency of the reducing agent in respect to hydro-soluble chrome VI.

DURATION:

GREY VERSION: 9 months from the date listed on

WHITE VERSION: 12 months.

PRODUCT TECHNICAL DATA

APPEARANCE	WHITE / GREY POWDER
CONSERVATION	IN THE ORIGINAL CLOSED PACKAGE, IN A COOL DRY PLACE
DURATION: GREY VERSION: 9 MONTHS FROM THE DATE LISTED ON THE PACKAGE; IN CONFORMITY WITH THE DIRECTIVE EEC 2003/53 INFORMING THAT THIS TIME EXPIRATION REGARDS THE EFFICIENCY OF THE REDUCING AGENT IN RESPECT TO HYDRO-SOLUBLE CHROME VI. WHITE VERSION: 12 MONTHS	
DANGER OF HARM	NO POSSIBLE IRRITATION OF THE EYES AND SKIN FOR CONTACT DUE TO THE CEMENT CONTENT. ADEQUATE PROTECTION IS RECCOMENDED.
FLAMMABILITY	NO
MIXING RATIO	31 PARTS WATER WITH 100 PARTS POWDER BY WEIGHT
LIQUID MIXTURE	6,2 LITERS PER 20 KG SACK OF POWDER
MAXIMUM APPLICATION DEPTH	15 MM
COVERAGE	4 Kg/m ²
APPLICATION TEMPERATURE	FROM + 5°C TO + 40°C
MIXTURE POT LIFE	3 HOURS
OPEN TIME AT 23°C AND 50% HUMIDITY	30 MINUTES
WALKOVER TIME WITH CAUTION FOR GROUTING ON DRY SUPPORTS AT 23°C	24 HOURS
FINAL HARDENING ON DRY SUPPORTS	14 DAYS

FINAL PERFORMANCES

	VALUE	MINIMUM REQUIREMENT
INITIAL TENSILE ADHESION STRENGTH 28 DAYS	≥ 1 N/mm ²	≥ 1 N/mm ²
ADHESION AFTER HEATING (14 DAYS + 14 DAYS AT 70°C)	≥ 1 N/mm ²	≥ 1 N/mm ²
ADHESION AFTER WATER (7 DAYS + 21 DAYS IN WATER)	≥ 1 N/mm ²	≥ 1 N/mm ²
FROST RESISTANCE (25 CYCLES)	≥ 1 N/mm ²	≥ 1 N/mm ²
FLEXIBILITY (EN 12002)	≥ 2,5 mm	≥ 2,5 mm
COMPRESSIVE STRENGTH	12 N/mm ²	
SHEAR STRENGTH	≥ 1,4 N/mm ²	≥ 0,7 N/mm ²
RESISTANCE TO TEMPERATURE	FROM - 30°C TO + 80°C	
CONFORMS TO	EN 12004 CLASS C2TE	
	EN 12002 CLASS S1	

data collected at 23°C and 50% of r.h.

PLEASE NOTE: The data and information contained herein are dictated by our best results, and are purely indicative and must be verified by the user of the product who assumes complete responsibility for its use.