



# BENFERJOLLY

Epoxy-polyurethane flexible, two part adhesive

- Floor and wall installation of marble, marble agglomerate and composite marble tiles, including low thickness tiles
- Interior floor and wall tiling, exterior walls and floors and in swimming pool, in granite and natural stones, including on underfloor heating
- Tiling over existing internal ceramic or wood floors
- Tiling on steel substrates, which must first be sanded
- Tiling on gypsum and anhydrite substrates, without the preventative application of primer
- Conforms to: EN 12004 R2T
- **CE**



## TECHNICAL FEATURES:

BENFERJOLLY is a two part white adhesive consisting of epoxy-polyurethane resins, graded particle size aggregates and special additives. It has been formulated and developed for rapid, reliable installation of almost all marble, granite, natural stone, marble agglomerate and tiles in composite marble with polyester resins or cements, including on non-absorbent substrates or substrates subject to slight dimensional variation. A special waterless composition makes this product especially suitable where there is a need to avoid the risk of irreparable staining, not least on porous varieties of marble, and prevent the possible deformation of reconstituted marble tiles. For interior and exterior application.



TECHNICAL ASSISTANCE



INSURANCE GUARANTEE



TECHNICAL MEETINGS



PROFESSIONAL USE

## CONTRACT ITEM SPECIFICATIONS:

Floors and walls must be laid with a bicomponent epoxy polyurethane adhesive, highly resistant and conforming to norm EN 12004 class R2T as BENFERJOLLY by Benfer.

### SUITABLE SUBSTRATES:

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

### INSIDE ONLY:

- Old ceramic tiles
- Elastomeric waterproofing membranes (ACQUASHIELD-GEL)
- Standard plasterboard
- Wooden boards
- Iron

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### 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 120 cm

See the choice table to verify size limits by tile/substrates characteristics.

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**METHODS OF USE:****SUBSTRATES PREPARATION:**

BENFERJOLLY is a caustic and irritating product. Avoid contact with skin and eyes wearing suitable protective clothing. Do not use on damp surfaces or on substrates which are subject to rising damp. The substrates must be solid, free from oil, grease and dust. They must be sufficiently cured (at least 1 week for every centimetre of thickness) and levelled. Any paint-work must be in good condition, washed and degreased. If this is not the case, the paint must be removed without damaging the plaster.

**PREPARATION OF THE MIXTURE:**

Pour the component B (catalyst) into the bucket of component A and mix well with a low speed electric stirrer to obtain a homogeneous paste. BENFERJOLLY is a two-part adhesive, which hardens as the result of a chemical reaction between two components; accordingly, it is very important that the two parts are used in the correct proportions, which on a construction site can be ensured only by mixing the two premeasured packs in their entirety.

Use the product in temperatures between + 10°C and + 30°C only; in temperatures below to 10°C product does not harden. Do not add water, solvents or other catalysts to mixing. Mix well strictly the contents of each can (component A+B). Any modification could cause the incorrect hardening of the product.

**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 BENFERJOLLY 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, 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 m<sup>2</sup>.

**FULL SERVICE:**

At 23°C the open time of the mix is approximately 120 minutes and the pot life is approximately 60-90 minutes. In unfavourable conditions (high room temperature - for example: +30°C), these times may be significantly reduced. In these circumstances, the product should be used within 30 minutes, spreading a little at a time, and discarding the mixture as soon as it begins to thicken in the bucket. Flooring installed using BENFERJOLLY can be walked over cautiously after about 12-18 hours for the purpose of grouting, and is ready for normal use after 3 days at 23°C. In case of lower temperature, the open time increase up to 30 hours for grouting and 6 days for a product at service.

**CLEANING:** Tiling and tools should be cleaned with alcohol when the adhesive is still fresh. Hardened product can be cleaned mechanically only.

**PACKAGING:** BENFERJOLLY packed in 4,44 kg plastic cans (A: 4,00 kg + B: 0,44 kg).

**STORAGE:** In the original pack if properly sealed.

**SHLEF LIFE:** 12 months.

**COVERAGE:** Coverage depends on the state of the substrate and the type of spreader used.

Support	Tiled surface	Laying System	Trowel type mm.	Consumption kg/m <sup>2</sup>
Int. Floor	S<1100	simple gluing*	8/10	4/5
	1100<S<3600	double gluing	10	6
Ext. Floor	400<S<1100	double gluing	8/10	5/6
	100<S<3600	double gluing	10	6
Int. Wall.	S<400	simple gluing	6	3,5
	400<S<2000	double gluing	8/10	5/6
	2000<S<3600	double gluing	10	6
Ext. Wall.	S<400	double gluing	6	4,5
	400<S<2000	double gluing	8/10	5/6
	2000<S<3600	double gluing	10	6

\*in U4 P4S double gluing

#### PRODUCT TECHNICAL DATA

	Component A	Component B
Classification according to EN12004:	R2T	
Consistency:	Epoxy-polyurethane	Paste Thick liquid
Colour:	White	Straw yellow
Maximum grain size:	0,2 mm	
Storage:	12 months in the original pack if properly sealed	
Toxicity:	Irritating in contact with eyes and skin. May cause sensitization.	Caustic, may cause sensitization.
Inflammability:	No	
Mix ratio:	Component A / Component B 90:10	
Mixture consistency:	Creamy	
Apparent mass volume:	1,6 kg/dm <sup>3</sup>	
Application temperature:	From + 10°C to + 35°C	
Pot life:	60-90 minutes	
Open time:	About 120 minutes*	
Vertical sliding to EN 1308:	< 0,5 mm	
Maximum thickness:	15 mm	
Foot traffic after:	12-18 hours*	
Grouting:	12 hours*	
Full service:	3 days*	
Final hardening:	3 days*	
Shear Adhesion strength:	> 2,0 N/mm <sup>2</sup>	
Shear Adhesion strength after water immersion:	> 2,0 N/mm <sup>2</sup>	
Shear Adhesion strength after thermal shock:	> 2,0 N/mm <sup>2</sup>	
Deformability according EN 12004:	> 5 mm	
Temperature resistance:	From - 30°C up to + 90°C	
*at 23°C and 50% relative humidity		

PLEASE NOTE: 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.