




Technical Data Sheet

MONOFLEX-M

Special white adhesive with elevated flexibility and high synthetic resin content – frost-resistant non-slip

		
Year: 04		
SCHOMBURG GmbH & Co. KG Aquafinstr. 2-8 D-32760 Detmold (Germany)		
EN 12004 MONOFLEX-M WEISS Cementitious adhesive Internal and external floors or walls		
Use of characteristics	Declared values	Test methods
Adhesive force	Initial shear adhesion Type C2 of EN 12004	EN 1248 section 8.2
Waiting action of water	Shear adhesion following immersion in water Type C2 of EN 12004	EN 1248 section 8.3
Action of climate/thermal ageing	Shear adhesion following thermal ageing Type C2 of EN 12004	EN 1248 section 8.4
Freeze-thawing cycles	Shear adhesion following freeze-thawing cycles Type C2 of EN 12004	EN 1248 section 8.5



Description:

MONOFLEX-M is a thixotropic powder adhesive made up by cement, aggregate with selected granulometry, synthetic resins and special additives. MONOFLEX-M has been conceived and developed for quick and sure laying of almost all types of ceramic materials also onto non-absorbing substrates, or onto substrates that are subject to slight dimensional variations. Besides, the high resistance to vertical slippage allows tiling from the top down.

Primary Uses:

MONOFLEX-M can be used for:

- laying porcelain tiles and non-absorbing ceramic tiles.
- interior or exterior laying of floor and wall ceramic tiles of all types even onto heated floors (hot water and electric radiant floor):
 - interior: largest size of the tiles 90 x 90 cm. For wall coverings and heated floors largest size of the tiles 60 x 60 cm.
 - exterior: largest size of the tiles 60 x 60 cm. For wall coverings the water absorption of the tiles must be < 0.5% is it 0.5% or 5%?

Typical Properties:

Consistency:	SOLOFLEX-M + water very doughy
Colour:	white and grey
Danger of toxicity:	no The cement content of the product may cause irritation to the skin and eyes. We

suggest to adapt appropriate protections.

Inflammable:	no
Mixing ratio:	26 parts water to 100 parts powder by weight
Application temperature:	from +5° C to +40° C
Pot life:	3 hours
Open time:	20 minutes at +23° C and 50% R.H.
Ready for grouting on dry supports:	24 hours at +23° C
Final hardening on dry substrates:	14 days

Technical properties

	Value	Requirement
Initial adhesion after 28 days:	≥ 1 N/mm ²	≥ 1 N/mm ²
Adhesion strenght after heat ageing (14 days + 14 days at +70° C):	≥ 1 N/mm ²	≥ 1 N/mm ²
Adhesion strenght after water immersion (7 days + 21 days into the water):	≥ 1 N/mm ²	≥ 1 N/mm ²
Adhesion after freeze-thaw cycle (25 cycles):	≥ 1 N/mm ²	≥ 1 N/mm ²
Flexibility (EN 12002):	≥ 2.5 N/mm ²	
Flexural strength:	3 N/mm ²	
Compression strength:	12 N/mm ²	
Shearing strength:	1.4 N/mm ²	
Resistance to temperature:	from -30° C to +80° C	
In compliance with:	EN 1 2004 class C2TE EN 12002 class S	

Application Procedures:

Surface Preparation:

Substrates should be free from dirt, paint, grease or wax. **Eventual painted surfaces must be in best, in case they are in a good condition, should be washed and degreased;** otherwise, it is indispensable to remove accurately any paints from the plaster. For laying on old floors of ceramic tiles, gres, marble or similar materials,

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it is necessary to ensure that these are properly fixed to the substrate, washed and degreased. It is indispensable always to leave a joint of at least 3 mm between tiles. For laying wall tiles it is necessary to respect the expansion joints of the structure, the joints between wall and wall and between wall and floor; which should be filled up elastically. Leave movement joints or joints on the perimeter approx. every 20 m².

Mixing:

Mix MONOFLEX-M with 26% 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 remix rapidly. MONOFLEX-M must be used within the pot life of 3 hours.

Method of application:

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 remove of 80% of their surface for wall coverings and of 95-100% for floor.

EXTERIOR: The contact between tile and adhesive must be 95-100% 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 MONOFLEX-M on the back of the tiles.

Same procedure is recommended indoors for:

- floor tiles largest than 500 cm² with water absorption of the tiles $\geq 0.5\%$ (e.g. porcelain tiles).
- floor tiles largest than 1100 cm² with all the other types of tiles
- wall tiles largest than 120 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° C and 50% of relative humidity the open time is of about 20 minutes. Under unfavourable conditions these time intervals can be reduced 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 improve 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 48 hours following the laying, the adhesive cannot stand the frost. The floors laid with MONOFLEX-M can be open to foot-traffic cautiously after about 24 hours and for grouting after 48 hours (at temperatures below to +15° C) They are ready for normal traffic after 14 days.

Cleaning and Equipment Maintenance:

The cleaning of the coating of MONOFLEX-M 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.

Estimating and Supply:

Packaging:

MONOFLEX-M is available in 25 kg poly-lined bags and 1,125 kg euro pallets loads.

Consumption:

It depends on the substrate and the type of trowel used. For smooth substrate and adhesive thickness of 5-6 mm, the coverage of MONOFLEX-M is 4-5 kg per m² and it increases to 0,5-1 kg per m² for rough substrates.

Storage & shelf Life:

MONOFLEX-M must be stored in the original unopened packaging in a dry and cool place.

White version:

12 months from the date listed on 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. UNIFLEX-F: 6 months.

Grey version:

12 months from the date listed on 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. UNIFLEX-F: 6 months.

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Health & safety:

Please adhere to valid European Material Safety Data Sheet.

Advice:

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 the use of the product.

 <p>CERTIFIÉ CSTB CERTIFIED 151 MC 157</p>	<p>C2 S1 Déformable</p> <p>E temps ouvert allongé</p>
<p>Conforme au référentiel pour emplois spécifiques :</p> <ul style="list-style-type: none">- Façade- PRE Plancher Rayonnant Electrique- Chape sulfate de calcium après primaire	