

# HIDROMAL FLEKS

*Two component, elastic waterproofing based on cement and polymer  
In compliance with EN 1504-2: 2.2 (C); 8-8.2 (C) and EN 14891*

## FIELD OF APPLICATION

Waterproofing for constructions exposed to positive and negative hydrostatic pressure, for indoor and outdoor waterproofing of pools, water treatment plants, wall and floor surfaces in basements, technical and drinking water reservoirs, ducts, concrete pipes, manholes, balconies, toilettes, kitchens, underground concrete elements and other.

## PROPERTIES

- two component product that is simple to prepare
- concrete protection of water and moisture penetration;
- resistant to positive and negative hydrostatic pressure;
- ceramic tiles can be applied directly on the waterproofing, using tile adhesive;
- suitable for drinking water reservoirs;
- application on moisturized substrate;
- excellent adhesion to the substrate;
- crack bridging ability under standard condition;
- elastic;
- bacteriologically resistant;
- resistant to ice;
- doesn't contain chlorides;
- UV stable;
- economic;
- non- toxic;
- simple application;

## TECHNICAL FEATURES

PROPERTY	METHOD	DECLARED VALUE
Appearance		
A component	-	grey powder
B component	-	white liquid
Mixing ratio	-	A:B =1:1
Bulk density of the product prepared for application	MKC EN 1015-6	1,14-1,26 g/cm <sup>3</sup>
Consistency of fresh mix	MKC EN 1015-3	240±20mm
Adhesion to the substrate (Bond strength)	EN 1542	≥0,8 MPa
Adhesion to the substrate after exposure to thermal cycles (freeze and thaw)	EN 13687-3	≥0,8 (0,5) MPa
Vapor-permeability	EN ISO 7783-1	Sd<5m - class I
Capillary absorption and water permeability	EN 1602-3	w<0,1kg/m <sup>2</sup> h <sup>0.5</sup>
Initial tensile adhesion strength	EN 14891	≥0,5 N/mm <sup>2</sup>
Initial tensile adhesion strength after water contact	EN 14891	≥0,5 N/mm <sup>2</sup>
Tensile adhesion strength after heat ageing	EN 14891	≥0,5 N/mm <sup>2</sup>
Tensile adhesion strength after freeze-thaw cycles	EN 14891	≥0,5 N/mm <sup>2</sup>
Tensile adhesion strength after contact with lime water	EN 14891	≥0,5 N/mm <sup>2</sup>

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Crack bridging ability under standard condition	EN 14891	≥0,75 mm
Waterproofing	EN 14891	No penetration
Elongation at brake, at 20°C	-	15%
Reaction to fire	EN 13501	F
Temperature for application		10°C-35°C
Workability time		3-4h
Dry at 20°C		
Forming dry layer of the surface		2-3h
Dry		24-48h
Apply next layer at 20°C		after 6-24h
Application of ceramic tiles on 20°C		after 24h
Use		after 7 days
Use in touch with drinking water		after 15 days

## METHOD FOR CONSTRUCTION

### SUBSTRATE PREPARATION

Substrate for application of Hidromal Fleks is concrete, cement mortar, stone or gypsum cardboard panels. The substrate should be sound, clean, solid and stable, without cracks, labile parts, existing coatings, grease or dust. The substrates with joints (bricks or ceramic tiles) should have entirely fulfilled elements, with firm joints without cracks. In case of substrate with ceramic tiles, the glaze of the tiles must be removed using scraper.

For executing waterproofing on the construction joints (horizontal and vertical, floor and wall), it is highly recommended to perform curved element (holker) made of Reparatur Malter F or to place ADING self-adhesive tape to bridge the joints, in case of constructive movements.

According to the details and the potentials of the building, joints at concreting, penetrations of installations through the construction, penetrations of the formwork spacers and similar should be appropriate treated with Reparatur malter F, ADING self-adhesive tape or with elastic acrylate sealant Adingakril.

For reconstructions, remove all labile parts of the substrate and clean it from dirt and dust. When the construction has any segregation or cracks, it is recommended to repair them with Eksmal, Reparatur Malter F, ADING self-adhesive tape, epoxy putty, or elastic sealant Adingakril, according to the detail and the potentials of the building.

Before the application of Hidromal Fleks 1K it is necessary to wet the surface with water.

### APPLICATION

To prepare Hidromal Fleks add B component (liquid) into A component (powder) and mix until it homogenize using mechanical mixer with medium speed (300-500 revolutions per minute). Use the product when the mixture in fully homogenized.

Apply it with brush or roller in two or three layers. The application of next layer on completely dry layer, in normal direction of 90° to the previous. According to the temperature, the period of time between two layers should be between 6-24h.

In case of mechanical damage of the waterproofing, simple correction is possible by removing the damaged parts and re-coating the surface.

Treated surfaces are intended to be protected of rain, wind, frost and freezing, at least 24h after the application. The temperature is intended to be between 10-35°C.

For protection of the surfaces waterproofed with Hidromal Fleks, it is necessary to mechanically protect them with expanded polystyrene or cement mortar. When using Hidromal Fleks on open surfaces and due to its non-resistance to UV radiation, it is necessary to protect it with ceramic tiles, Adingfleks or other type of water-based coating.

## CONSUMPTION

1,20-1,40 kg/m<sup>2</sup> (for two layers)

1,80-2,00 kg/m<sup>2</sup> (for three layers)

WATERPROOFING

## CLEANING

Tools and equipment should be cleaned with water, immediately after use.

## PACKING

Plastic bucket for 10kg set:

A component- 5kg

B component- 5kg

40kg set:


A component- 20kg

B component- 20kg


## STORAGE

In original, closed packaging, in dry spaces, at temperature between 5-35°C, protected from direct exposure to sunlight. Shelf life: 12 months.

## CE MARK

 2032	
ADING AD Skopje, Novoselski pat (ul 1409) br.11 1060 Skopje, North Macedonia 14	
GFAB001/10 EN 1504-2:2004 <b>HIDROMAL FLEKS</b> Elastic waterproofing coating, for surface protection for concrete and moisture control	
Permeability to water vapour	<b>Class I, <math>S_D &lt; 5 \text{ m}</math></b>
Capillary absorption and permeability to water	<b><math>w &lt; 0,1 \text{ kg/m}^2 \cdot \text{h}^{0,5}</math></b>
Adhesion strength by pull-off test	<b><math>\geq 0,8 \text{ N/mm}^2</math></b>
Reaction to fire	<b>Class F</b>
Dangerous substances	<b>No performance determined</b>

WATERPROOFING

 2032	
ADING AD Skopje, Novoselski pat (ul 1409) br.11 1060 Skopje, North Macedonia 23 GFAB001/9 EN 14891:2017 <b>HIDROMAL FLEKS</b> Polymer modified cementitious liquid-applied water impermeable product for use beneath ceramic tiling bonded with adhesives	
Initial tensile adhesion strength	≥ 0,5 N/mm <sup>2</sup>
Tensile adhesion strength after water contact	≥ 0,5 N/mm <sup>2</sup>
Tensile adhesion strength after heat ageing	≥ 0,5 N/mm <sup>2</sup>
Tensile adhesion strength after freeze-thaw cycles	≥ 0,5 N/mm <sup>2</sup>
Tensile adhesion strength after contact with lime water	≥ 0,5 N/mm <sup>2</sup>
Waterproofing	<b>No penetration and ≤ 20g weight gain</b>
Crack bridging ability under standard condition	≥ 0,75 mm

**Health hazards:** Avoid contact of the product with skin and eyes, such as direct inhalation. In case of accidental contact of the product with skin, immediately remove it using soap and water. In case it splashes into eyes, immediately rinse them using plenty of water and seek for medical help.

**Fire:** Hidromal Fleks is not flammable.

**Cleaning and storage:** Clean loose residues of Hidromal Fleks with water. Old and used packaging should be disposed in accordance with the local rules and regulations for that type of waste. It is recommended to adjust the method of application and necessary quantities according to the potential of the building, as well as mandatory use of appropriate equipment. Additional information are provided in the Safety Data Sheet of the product.

WATERPROOFING