

# HIDROMAL FLEKS 1K

*One component, elastic waterproofing with fibers based on cement and polymer  
In compliance with EN 1504-2/2.2 (C); 8.2 (C)*

## FIELD OF APPLICATION

Elastic waterproofing for constructions exposed to positive and negative hydrostatic pressure, for indoor and outdoor waterproofing of underground concrete structures, wall and floor waterproofing in basements, pools, technical and drinking water reservoirs, ducts, balconies, flat roofs terraces, toilettes, baths, kitchens and similar. Also it is used for waterproofing of constructions, where it can remain unprotected from atmospheric exposure for longer period of time.

## PROPERTIES

- simple preparation and application;
- 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;
- bridges the micro-cracks;
- elastic;
- vapor-permeable;
- resistant to bacteria;
- UV stable;
- resistant to ice;
- does not contain chlorides.

## TECHNICAL FEATURES

PROPERTY	METHOD	DECLARED VALUE
Appearance	-	white powder
Mixing ratio - water/Hidromal Fleks 1K - W/M	-	for application using brush 0,24-0,28kg for 1kg Hidromal Fleks 1K for application using trowel 0,14-0,16kg for 1kg Hidromal Fleks 1K
Bulk density of the product prepared for application	MKC EN 1015-6	1,26-1,39 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 (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>1/2</sup>
Adhesion to the substrate exposed to temperatures (freezing and melting)	EN 13687-3	≥ 0,8MPa
Elongation at brake, at 20°C	-	20%
Reaction to fire	EN 13501	F
Temperature for application		5°C-35°C
Workability time		24h

Dry at 20°C		
Forming dry layer of the surface		after 6h
Dry		after 24h
Apply next layer at 20°C		after 12h
Use		after 7 days
Use in touch with drinking water		after 15 days

## METHOD FOR CONSTRUCTION

### SUBSTRATE PREPARATION

Substrate for waterproofing of Hidromal Fleks 1K is concrete, cement mortar, gypsum cardboard panels, stone, ceramic tiles (without glaze) and bricks. 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.

The application of the floor waterproofing should be executed on solid, stable and compact cement mortar substrate with slope.

For executing waterproofing on the construction joints (horizontal and vertical, floor and wall), it is highly recommended to make curved element (holker) using 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.

In case of wide floor substrates, where the waterproofing is intended to be applied on cement mortar substrate or on additional reinforced plate with slope, it is recommended to split (cut) the substrate on fields 9-12m<sup>2</sup> wide (24h after the construction), to prevent the risk of unplanned cracks of the substrate, which would need additional treatment. 28 days after the concreting fill the joints (cuts) with elastic sealant or place ADING self-adhesive tape.

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 or elastic sealant Adingakril, according to the detail and the potentials of the building.

Before the application of Hidromal Fleks 1K on warm and very dry substrate, wet the surface with water, to prevent burnout of the material.

### APPLICATION

Prepare the material with water (240-280g/kg material) and mix until it homogenize using mechanical mixer with medium speed (300-400 revolutions per minute). Leave the mixture 10min calm to reach the required consistency. Mix it again right before the application.

Apply it with brush in two or three layers. The application of the waterproofing on flat and smoot surfaces can be executed with roller. Apply the next layer on completely dry layer, in normal direction of 90°C to the previous. According to the temperature, the period of time between two layers should be between 6-24h. The total thickness of the layers is intended to be 1-2mm.

Hidromal Fleks 1K also can be executed using trowel. Prepare the material using 140-180g water/kg material. Apply it in layer with thickness up to 2-3mm. The surface with dry Hidromal Fleks 1K might be gentle scraped by hand.

In case of mechanical damages of the waterproofing, the correction is simple, by overpainting the area.

Treated surfaces are intended to be protected of rain, wind, frost and freezing, at least 48h after the application. The temperature is intended to be between 10-35°C.

Protect the underground surfaces waterproofed with Hidromal Fleks 1K mechanically using protective membrane, expanded polystyrene or cement mortar. Protect the over ground surfaces of the building using geotextile, ceramic tiles, Adingfleks or other type of water based coating.

## CONSUMPTION

for two layers: ~ 1kg/m<sup>2</sup> (bathrooms, kitchens)

for three layers: ~ 1.5kg/m<sup>2</sup> (terraces, pools)

## CLEANING

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


## PACKING

paper bag: 18kg

## STORAGE

In original, closed packaging, in dry spaces, at temperature between 10-30°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 17 GFAE001/6 EN 1504-2:2004	
<b>HIDROMAL FLEKS 1K</b> Elastic fiber-reinforced waterproofing coating, for surface protection for concrete and moisture control	
Permeability to water vapour	<b>Class I, S<sub>D</sub> &lt; 5 m</b>
Capillary absorption and permeability to water	<b>w &lt; 0,1 kg/m<sup>2</sup>·h<sup>0,5</sup></b>
Adhesion strength by pull-off test	<b>≥ 0,8 N/mm<sup>2</sup></b>
Adhesion after thermal compatibility:	<b>Adhesion after 20 freeze-thaw cycles</b>
Thermal cycling without de-icing salt impact	<b>≥ 0,8 N/mm<sup>2</sup></b>
Reaction to fire	<b>Class F</b>
Dangerous substances	<b>No performance determined</b>

**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 1K is not flammable.

**Cleaning and storage:** Clean loose residues of Hidromal Fleks 1K 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.