

# WATERFIN 1K flex



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# WATERPROOFING

# BETOSAN

## Single-component flexible waterproofing slurry/anti-carbonation coating

### 1. Product characteristics

Single-component permanently flexible waterproofing slurry/anti-carbonation coating. Meets the requirements of Annex ZA of EN 14891.

- simple workability, mixed with water only
- can be applied on wet surface
- perfect adhesion to the base
- permanently resistant to high water overpressure
- highly elastic, able to bridge cracks
- high diffusion resistance to CO<sub>2</sub>

### 2. Use

**WATERFIN 1K flex** is a single-component permanently flexible polymer-cement sealing suspension intended for hydro insulation of various concrete and reinforced concrete construction elements. It is used for surface sealing of concrete constructions in hydro technical structures, water treatment industry, etc. It can be also used as a hydro-insulation layer on cohesive lime-cement plasters, masonry built of aeroconcrete blocks, burnt brick or plasterboard and other cohesive substrates. It proved well as a waterproof insulation layer under ceramic tiles or other floor finishes in bathrooms, swimming pools, water tanks, etc. Another advantage is resistance to CO<sub>2</sub> permeation which provides excellent protection against carbonation to the structure. The slurry is also permeable to water vapor, which allows the structure to breathe. For its water vapor permeability the **WATERFIN 1K flex** slurry is suitable also for bases with lower frost resistance in exteriors.

### 3. Physical and mechanical parameters

#### Requirements / results according to EN 14891

		Testing method	Requirements	Results
Adhesion to base (MPa)	initial	EN 14891	> 0.5	> 1.5
	after contact with water	EN 14891	> 0.5	> 1.0
	after warm aging	EN 14891	> 0.5	> 1.5
	after thawing cycles	EN 14891	> 0.5	> 1.0
	after contact with lime water	EN 14891	> 0.5	> 0.9
Water-tightness		EN 14891	no penetration	no leakage
Crack bridging ability under normal conditions (mm)		EN 14891	> 0.75	> 1.0

#### Physical and mechanical parameters

Color of the coating *)	non-standard grey
Elongation (%)	> 30
Diffusion resistance $s_D^{H_2O}$ (m)	< 1
Diffusion resistance $s_D^{CO_2}$ (m)	> 250

\*) in dependence on the absorbability of the base some coloration variance might appear

### 4. Test certificates

Meets the requirements of EN 14891. The product is certified according to Act No. 22/1997 Coll. and Regulation (EU) No 305/2011 of the European Parliament and of the Council (CPR). Continuous independent production quality control is provided by AZL 1687 LABBET®. Supervision of quality management, environmental and OSH systems is performed by Certification Body No. 3029.

### 5. Instruction for preparation and application

**Base.** Any incoherent, loose, weatherworn or otherwise visibly damaged concrete shall be completely removed from the base surface. The concrete surface cannot be contaminated by substances negatively effecting adhesion to the base (fats, greases, oils, etc.). The concrete surface must not be covered with dust. Tensile strength of concrete surface layers shall be 1.5 MPa at least. Caverns and other surface damages, if any, shall be filled with the repair mortar **MONOCRETE PPE TH**. The base shall be penetrated with **DENSOCRETE 222** diluted in the ratio approximately 1 : 5 in dependence on the absorbance of the base. In case of exterior application, the underlying layers shall be freeze-thaw resistant.



Preparation of waterproofing coating. **WATERFIN 1K flex** is supplied in dry form. The mix is prepared by gradually adding water to the dry material while constantly stirring until mushy consistency fit for application is reached. Optimum amount of water is about 0.2 – 0.3 liters/kg of dry material, i.e. 5 ÷ 7.5 liters of water per 25 kg pack. The mixture shall be perfectly homogenized in case of additional thinning of the coating.

Workability is max. 60 minutes at 20 °C and relative humidity 50 - 70%. The prepared composition shall be suitably protected against desiccation.

Neither temperature of base nor temperature of ambient air shall be below + 5 °C and above + 30 °C.

Water proofing coating is applied by a brush or roller coating in two or three layers at least. Layers should be applied crosswise (brush strokes would be superposed). The second and third layer can be applied after setting of the previous one i.e. approximately after 24 hours. The coating exposed to backwater shall be at least 1.5 mm thick. Minimal thickness 1 mm can be used in other cases. In corner, edge or base dilatation areas, it is necessary to insert sealing strip **WATERFIN TP** into wet coating.

## 6. Specific consumption

Specific consumption of the water proofing coating amounts to 1.5 ÷ 1.7 kg/m<sup>2</sup> at 1 mm in dependence on surface roughness and absorbance.

## 7. Packing and storage

**WATERFIN 1K flex** is packed into 25 kg PE-lined paper bags. During transport and storage **WATERFIN 1K flex** shall be effectively protected against moisture. The shelf life of the product in original undamaged packing is 9 months

After the expiration of min. shelf life, which is stated on the packaging, ingredients are not fully effective at reducing chromium VI below 2 ppm.

## 8. Health protection at work

Handling **WATERFIN 1K flex** dry mortar does not require any extraordinary hygienic precautions. The product contains alkalis and therefore any contamination of mainly eyes or mucous membrane must be prevented. Health and labor safety rules applicable to work with cement or lime mortars are to be adhered to. It is especially recommended to use rubber gloves.

Issued MSDS meets the requirements of EC-Regulation 1907/2006, Article 31.

Because the product meets the criteria for classification as hazardous, it is necessary to provide the recipient or carriers with MSDS.

In countries where regulation REACH (para. 33.1): EU regulation on chemicals and their safe use (REACH: EC 1907/2006) is valid, professional users and distributors must be provided with following information automatically and without request:

*This product is subject to Regulation (EC) No. 1907/2006 (REACH). It does not contain any substances that could be released from product under normal or reasonably foreseeable conditions of use. Therefore, there are no registration requirements for substances in articles within the meaning of Article 7.1 of the Regulation.*

*Based on our current knowledge, this product does not contain SVHC (substances of very high concern) from candidate list published by the European Chemicals Agency in concentrations above 0.1% (w / w).*

## 9. Waste disposal

During disposal of contaminated packages or clearing debris from product, it is necessary to follow the Act No. 185/2001 Coll. on waste, as amended.


## 10. Important notice

All information mentioned above, especially advice for processing and application of our products, is based on our knowledge from the development of chemical products and on years of experience with applications in practice at standard conditions, and proper storage and use. Due to the differing conditions during processing, high count of products, varying nature and modifications of base and other external influences, the procedure based on the information provided or on other written or oral recommendations, may not always ensure satisfactory working results. BETOSAN s.r.o. assumes no liability for provided advice or recommendation. The applicator must prove, that he submitted complete information on time and in writing which is necessary for a proper detailed assessment by BETOSAN s.r.o. The applicator must test the suitability of the products for the intended application. Proprietary rights of third parties, above all, must be taken into account. All

received are orders subject to our current "General sales and delivery conditions ". Please always make sure that you follow the most recent issue of the Technical Data Sheet. It is available, along with other information, at our Technical Department or at [www.betosan.cz](http://www.betosan.cz)



## 11. CE marking

 1301		
<b>BETOSAN s.r.o.</b> Na Dolinách 28, 147 00 Prague 4		
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EN 14891:2013/AC		
4-28/072013		
<b>WATERFIN 1K flex</b> Flexible waterproofing slurry/anti-carbonation coating		
Adhesion to base (MPa)	initial	> 1.5
	after contact with water	> 1.0
	after warm aging	> 1.5
	after thawing cycles	> 1.0
	after contact with lime water	> 0.9
Water-tightness		no leakage
Crack bridging ability under normal conditions (mm)		> 1

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