

WATERFIX XP



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Waterproofing plasticized mortar with XYPEX ADMIX C 1000 admixture

1. Product characteristics

Single-component plasticized (liquefied) dry mortar mixture containing sealing admixture XYPEX ADMIX C-1000. Meets the requirements of EN 14891.

- applied manually or by dry spraying
- perfect adhesion to base, good mechanical properties
- compensated in volume
- permanently water-resistant
- watertight (up to 120 m water pressure)
- frost-resistant
- highly chemically resistant
- seals the concrete surface against water, oils, organic solvents, oil products

2. Use

WATERFIX XP is a single-component plasticized dry mortar mixture designed especially for making horizontal waterproofing layers on concrete base. **WATERFIX XP** mortar can be treated directly with appropriate type of secondary protection in dependence on the exposure of the repaired structure. Due to secondary crystallization in the pore system of a water-bearing concrete, it creates an insulating layer on the surface of a concrete structure, which is impermeable to water, oil, organic solvents, oil products etc.

3. Physical and mechanical parameters

Requirements / results according to EN 14891

		Testing method	Requirements	Results
Adhesion to base (MPa)	initial	EN 14891	> 0.5	> 2.0
	after contact with water	EN 14891	> 0.5	> 2.0
	after heat aging	EN 14891	> 0.5	> 2.0
	after thawing cycles	EN 14891	> 0.5	> 2.0
	after contact with limewater	EN 14891	> 0.5	> 2.0
Water-tightness		EN 14891	no penetration	no leakage
Crack-bridging ability under normal conditions (mm)		EN 14891	> 0.75	NPD

Physical and mechanical parameters

WATERFIX XP		f	r	c
Color		Non-standard grey		
Bulk density of fresh mortar (kg/m ³)		2 200 ± 50		
Tensile bending strength (MPa)	7 days	> 4.0	> 4.5	> 4.8
	28 days	> 7.5	> 8.0	> 9.0
Compressive strength (MPa)	7 days	> 20	> 23	> 25
	28 days	> 38	> 44	> 48
Dynamic E-module (GPa)		< 30	< 32	< 35
Thermal expansion coefficient (K ⁻¹)		11.5 ± 0.4x10 ⁻⁶		
Frost resistance		> T100		
Filtration coefficient k (ms ⁻¹)		< 2.5x10 ⁻¹²		

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

During the processing of dry mortar mixes **WATERFIX XP** it is generally necessary to comply with the principles contained in the relevant technological process BETOSAN for repair of reinforced concrete structures (TP # 1/06). **Base.** Any incoherent, loose, weatherworn or otherwise visibly damaged concrete shall be completely removed from the surface of the base. Corroded reinforcement shall be carefully released and cleaned of any corrosive products. Before application of repair material, humidification of the base surface shall be properly and repeatedly performed for at least 120 minutes. The properly humidified concrete shall be dully dump, and not covered with dump shining water film. Substrate can be cohesive masonry as well. It is possible to anchor the material to substrate by adhesion bridge **DENSOCRETE 111** or mechanically.

Preparation of mortar. The mortar is prepared by simple mixing with water. During mixing, it is necessary to use a low-speed mixer with forced circulation. Recommended mixing ratio is shown in the following table:

Type of mortar	max. size of fillers	recommended mixing ratio		thickness of applied layer in one working cycle	
		dry component (kg)	water (liters)	min. (mm)	max. (mm)
WATERFIX XP f fine	1 mm	25	3.40 ÷ 3.55	3	12
WATERFIX XP r medium	4 mm	25	3.35 ÷ 3.50	10	25
WATERFIX XP c coarse	8 mm	25	3.25 ÷ 3.35	20	40

The recommended batch of water can be adjusted to reach optimum workability. If added water exceeds the recommended quantity by 10%, risk of cracking is significantly enhanced. It can also lead to drop of mechanical properties.

Workability of the product is 50 - 60 minutes under 20 °C.

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

Mortar application. **WATERFIX XP** can be applied either manually or mechanically. Mortar is applied in layers which thickness shouldn't exceed maximum number indicated in the table above.

Surface finalization. After initial setting of the last layer, surfacing is done by smoothing out with a dry polyurethane finisher. No wet surfacing should be performed.

Surface treatment. Repaired surfaces shall be properly treated immediately after completion to avoid especially direct exposure to sun, wind effect and other factors accelerating undesirable evaporation of the batch water. Use of the treatment agents **DENSOCURE W** and **DENSOCURE R** proved well.

6. Specific consumption

Specific consumption of dry mortar is 1.8 -1.9 kg/m² at 1 mm of layer thickness.

7. Packing and storage

The product is supplied in PE-lined paper bags of 25 kg weight. **WATERFIX XP** must be efficiently protected during transportation and storage against moisture. Shelf life in undamaged packing is 6 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 **WATERFIX XP** 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.

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 orders are 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

11. CE marking

CE 1301		
BETOSAN s.r.o. Na Dolinách 28, 147 00 Prague 4		
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EN 14891:2013/AC		
4-5/072013		
Waterfix XP Waterproofing plasticized mortar with XYPEX ADMIX C 1000 admixture		
Adhesion to base (MPa)	initial	> 2.0
	after contact with water	> 2.0
	after warm aging	> 2.0
	after thawing cycles	> 2.0
	after contact with lime water	> 2.0
Water-tightness		no leakage
Crack-bridging ability under normal conditions		NPD

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