

Single-component water-soluble protective coating on the basis of silicone-acrylate resins

1. Product characteristics

Single-component protective coating on the basis of specially formulated silicone-acrylate resin. Meets the requirements of EN 1504-2.

- supplied in optimum consistence fit for direct application
- has extremely low water vapor resistance.
- has enhanced carbon dioxide vapor resistance
- generated coating film is permanently water-resistant and resistant to alkaline environment
- permanently protects treated surfaces against aggressive effects of acid components of climate and operating media.
- applied by roller, manual coating or spraying
- facilitates maintenance of coated surfaces

2. Use

BETOSIL W is a single-component protective coating on the basis of specially formulated silicone-acrylate resin, used especially for curing concrete and reinforced concrete constructions. It proved very well for protection of appearing concrete. **BETOSIL W** is intended for such particular conditions, which require both high vapor permeance (water vapor permeability) and protection of the surface against damaging climate effects. It effectively protects the treated surfaces against carbonation. It has high resistance to atmospheric conditions and effects of chemical de-icing agents. It has also good resistance to condensates with increased acidity (chemical plants, road constructions, etc.).

3. Physical and mechanical parameters

Requirements / results according to EN 1504-2

	Testing method	Requirements	Results
Water vapor permeability	EN ISO 7783-1	Class I < 5 m	< 0,2 m*
Carbon dioxide permeability	EN 1062-6	> 50 m	> 50 m *
Water penetration rate in liquid stage	EN 1062-3	w < 0.1kg/m ² h ^{-0,5}	w < 0.1kg/m ² h ^{-0,5}
Adhesive Bond	EN 1542	> 1.5 MPa	> 1.5 MPa

Physical and mechanical parameters

Color of composition	RAL shades
Density	1 590 ± 45 kg/m ³
Water-tightness on concrete	W < 0.1 l/m ²
Resistance to de-icing chemicals	> 150 cycles

* Film thickness 100 µm

4. Test certificates

Meets the requirements of EN 1504-2, annex ZA and TP ŘSD Sec. 31. and TP SSBK III.

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 or weatherworn particles and dust shall be completely removed from the surface of the repaired base. The concrete surface cannot be contaminated by substances negatively affecting adhesion to the base (fats, greases, oils, etc.). The concrete should be left to cure for at least 14 days before the application. Penetration of the surface by **BETOSIL fixativ W** proved well for better anchoring of the coating.

Preparation of the penetration coat. The penetration coat is properly mixed and homogenized before application itself. The coating composition does not need any further dilution, but a small amount of clear water can be mixed in properly to adjust the composition if required.

Workability. Workability of the penetration composition is unlimited. The penetration composition shall be effectively protected against desiccation.

Neither temperature of the base nor temperature of ambient air shall be below + 5 °C and above +30 °C. Ideal temperature for application is between +10 °C and +25 °C.

Application. The first step is penetration of the base by the penetration and anchoring coat **BETOSIL fixativ W**. The penetration coat is applied preferably by a roller or, as the case may be, a brush in quantity amounting to approximately 100 - 150 g/m² in dependence on absorbability of the base. In case of larger surfaces it proved well to apply **BETOSIL fixativ W** by spraying using some suitable airless devices.

BETOSIL W shall be applied after 24 hours. The first coating layer is evenly applied by a brush to avoid creeping of paint. The second coating layer will be applied by a roller after another 24 hours. If **BETOSIL W** is applied by spraying, it is practical to adjust its consistency in the amount **up to 10%**.

Coating shouldn't be applied in rain, strong wind or in the intense direct sunlight. Tools and contaminated places shall be immediately washed by water.

6. Specific consumption

Spreading capacity (specific consumption) of the **BETOSIL W** penetration coat amounts to 0.15 ÷ 0.20 kg/m² in one layer in dependence on the absorbability and roughness of the base.

7. Packaging and storage

BETOSIL W is supplied in PE buckets of 10 kg net capacity. The shelf life of the product in original undamaged packing is 6 months. During transportation **BETOSIL W** must be effectively protected against frost.

8. Health protection at work

Work with the penetration system **BETOSIL W** requires adequate sanitary measures usual for work with dispersed coating compositions. The product does not contain any harmful substances. During application use of common personal protective equipment (mask, rubber gloves) is assumed. In case of accidental affliction of mucous membranes or skin wash thoroughly the irritated place and in case of accidental swallowing immediately search medical help.

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

In countries where regulation REACH (par. 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

 1301	
BETOSAN s.r.o. Na Dolinách 28, 147 00 Prague 4	
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1301-CPD-0257	
EN 1504-2:2004	
BETOSIL W Water-soluble protective coating	
Water vapor permeability	< 0,2 m
Carbon dioxide permeability	> 50 m
Water penetration rate in liquid stage	< 0.1 kg/m ² h ^{-0,5}
Adhesion bond	> 1.5 MPa
Dangerous substances	meets 5.4

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CONCRETE REPAIR

BETOSAN s.r.o., Na Dolinách 28, 147 00 Praha, Czech Republic
Business and technical office Nová cesta 291/40, 140 00 Prague 4, Czech Republic
Tel./fax.:+420 241 431 212, tel.:+420 241 431 215
E-mail: praha@betosan.cz, www.betosan.cz