

BETOLIT EP 0-1 DC FR



Low viscosity epoxy composition for application under low temperatures

1. Product characteristics

BETOLIT EP 0-1 DC FR is a specially formulated low-viscous resin with tolerance to low temperatures. Meets the requirements EN 13813.

intended for application under temperatures between 0 °C and 10 °C

after hardening shows perfect mechanical properties

very low viscosity

permanently resistant to effects of aggressive acidic and alkaline medias, oils, oil products, etc.

supplied in the stated ratio of each component, no measuring in-situ (at the site) needed

electric insulation resistance > 500 M

2. Use

BETOLIT EP 0-1 DC FR is an epoxy composition on the basis of specially formulated low-viscous epoxy resin tolerant to lower temperatures. It is intended for priming and impregnation coatings, sealing coating and filling of grooves and dents according to ZTV-BEL-B 99, it can be also used as adhesion bridge underneath epoxy based screeds, coatings or polymer-mortars bases during applications under temperatures between 10 °C and 0 °C.

3. Physical and mechanical parameters

Requirements / results according to EN 13813

Properties	Declared value or class
Reaction to fire	F
Abrasion resistance according to BCA	AR 0.5
Adhesion	B2.0
Impact resistance	IR min. 10 Nm
Compressive strength	C50
Tensile bending strength	F30

Physical and mechanical parameters

non-hardened composition	
Color of composition	clear/yellowish
Density (kg/m ³)	1 170 ± 20
Viscosity under 20 °C (mPas)	750 ± 100
Workability time under 20 °C and 50% RV (min.)	30
hardened composition	
Tensile bending strength (MPa)	33
Elongation (%)	13
Impact strength (kJm ⁻²)	27
Walkable under 20 °C (hours)	18
Application of next coat (e.g. bitumen insulation strips) (hours)	72

4. Test certificates

Meets the requirements of EN 13813 and TP SSBK III.

Initial tests types according to EN 13813 issued by TSÚS Bratislava.

Supervision of the quality system, EMS and OHS is carried out by Notified Body No. 1020.

5. Instruction for preparation and application

Base. Any incoherent, loose or weatherworn particles shall be removed from the base. The surface cannot be contaminated by substances negatively effecting adhesion of the coating to the base (fats, greases, oils, etc.). Tensile strength of surface layers of the base shall be at least 1.5MPa.

The composition is prepared by proper mixing of components A and B in specified rate 2:1. Components A and B are mixed in a sufficiently voluminous vessel by an electrically driven low-speed propeller agitator for at least 3 minutes.

Application of the sealing coat according to ZTV-BEL-B 99:

Priming (anchoring impregnation coat) is applied equally by a roller or by a brush in quantity amounting to 300 - 500 g/m² in dependence on absorbability of the base and in such way to avoid accumulating of the hardening resin. The priming should not create any glossy film on the concrete surface. Freshly applied composition should be covered by quartz filler **BETOFIL FJ** (graining 0.3-0.7 mm) using 1.5 kg/m². All loose (unanchored) quartz particles should be removed (swept) after hardening of the epoxy composition.

The sealing coat shall be applied on a primed surface by a roller or brush on such created layer using 300 - 500 g/m². The composition should be spread equally on the surface and in such way to avoid accumulating of the hardening resin. The sealing coat should **NOT** be covered by quartz filler again.

Any dents of up to 0.5 cm depth should be filled with polymer-mortar created from epoxy composition **BETOLIT EP 0-1 DC W** and quartz filler **BETOFIL FJ** (graining 0.3-0.7 mm) in mixing ratio 1:4 by weight. Such created polymer-mortar should be applied over fresh or hardened priming coat and its surface should be covered by quartz filler **BETOFIL FJ** (graining 0.3-0.7 mm) using 1.5 kg/m². All loose (unanchored) quartz particles should be removed (swept) after hardening of the epoxy composition. Dents deeper than 0.5 cm should be filled with repair mortar according to ZTV-SIB 90 for example **MONOCONCRETE PPE** or **MONOCONCRETE PPE TH**.

Application should generally proceed according to the specific technological processes of BETOSAN s.r.o. company. For example technological processes for making adhesion joint (TP 6/00/06), for making a grouting composition (TP 8/00/06), for application of polymer-mortars and polymer-concrete (TP 10/00/06), for application of polymer-mortars and polymer-concrete with color surface finalization **QUARZCOLOR** (TP 11/00/06) and for impregnation and over-laying of silicate surfaces (TP 16/00/06). Neither temperature of the base nor temperature of ambient air shall be below + 0 °C and above + 30 °C at <75% relative humidity (at least 3 °C above dew point). Tools can be cleaned by the **BETOFIL R** agent.

6. Specific consumption

Spreading capacity (specific consumption) of the **BETOLIT EP 0-1 DC FR** amounts to 300 - 500 g/m² in dependence on the quality of the base.

7. Packing and storage

BETOLIT EP 0-1 DC FR component **A** is supplied in PE buckets of 6 kg, component **B** is supplied in PE packing in accordance to that amount, i.e. 3kg.

The shelf life of the product in original undamaged packing is 24 months. During storing and transportation take into account that it's a flammable material of a IV. Class.

8. Health protection at work

Work with a two-component system **BETOLIT EP 0-1 DC FR** requires adequate sanitary measures usual for work with materials on the epoxy basis. First of all it is necessary to follow relevant provisions of Czech Standards SN 64 1301 and SN 65 0201. The workplace shall be properly ventilated, workers shall have adequate personal protective equipment, and no eating, drinking or smoking is allowed while working.

In case of eye contamination it is necessary to rinse out eyes with clean water and immediately seek out medical aid. In case of accidental swallowing it is necessary to immediately cause vomiting and immediately seek out medical aid. In case of afflicted skin it is necessary to wash thoroughly the irritated skin with warm water and soap and treat it by a suitable reparative cream.

Non-hardened **BETOLIT EP 0-1 DC FR** is a flammable material of the IV. Class.

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 (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

CE 1301	
BETOSAN s.r.o. Na Dolinách 28 147 00 Prague 4	
07	
7-13/072013	
EN 13813:2002 SR-C50-F30-B2-AR0,5-IR10	
BETOLIT EP 0-1 DC FR Resin coating	
Reaction to fire	F
Abrasion resistance according to BCA	AR 0.5
Adhesion	B2.0
Impact resistance	IR min. 10 Nm
Compressive strength	C50
Tensile bending strength	F30

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