# **BETOLIT EP 0-1 DC NF**





Low viscosity epoxy resin modified by non-toxic reactive thinner with nanofillers

# 1. Product characteristics

**BETOLIT EP 0-1 DC NF** is a specially formulated low-viscous epoxy resin containing nanofillers. Meets the requirements of EN 13813.

- supplied in a specified ratio of each component; no measuring in-situ required
- after hardening shows perfect mechanical properties
- enhanced abrasion resistance (microhardness)
- low viscosity
- after hardening is permanently resistant to effects of aggressive acidic and alkaline medias, oils, oil products, etc.

# 2. Use

**BETOLIT EP 0-1 DC NF** is an epoxy composition on the basis of specially formulated epoxy resin containing nanofillers, which is intended especially for highly mechanically and chemically resistant floor finishes. **BETOLIT EP 0-1 DC NF** resin can be used in various ways either as a composition itself (priming coats, injections, etc.) or also as a binder for screeds, coatings, polymer mortars and polymer concretes. Use of the epoxy resin should generally proceed according to the specific technological processes of BETOSAN s.r.o. company. (See below)

# 3. Physical and mechanical parameters

#### Requirements / results according to EN 13813

| Declared value or class |
|-------------------------|
| F                       |
| AR 0.5                  |
| B2.0                    |
| IR min. 10 Nm           |
| C50                     |
| F30                     |
|                         |

#### Physical and mechanical parameters

| non-hardened composition             |            |  |  |
|--------------------------------------|------------|--|--|
| Color of composition                 | clear      |  |  |
| Density (kg/m³)                      | 1 135 ± 25 |  |  |
| Viscosity under 25 °C (mPa.s)        | 980 🗆 100  |  |  |
| hardened composition                 |            |  |  |
| Tensile bending strength (MPa)       | 40         |  |  |
| Elongation (%)                       | 4          |  |  |
| Microhardness according to Vickers   | HV 12      |  |  |
| Impact strength (kJm <sup>-2</sup> ) | 36         |  |  |

# 4. Test certificates

Meets the requirements of EN 13813.

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

The composition is prepared by proper mixing of components A and B in specified ratio. The mixing ratio is the following:

| BETOLIT EP 0-1 DC NF | component A (weight parts) | component <b>B</b> (weight parts) |
|----------------------|----------------------------|-----------------------------------|
|                      | 2                          | 1                                 |

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Components A and B shall be well mixed in a vessel of sufficient size by an electric driven slow speed propeller agitator.

# 6. Application

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).

#### 7. Packing and storage

**BETOLIT EP 0-1 DC** component A is supplied in cans of 6 kg, component B is supplied in cans of 3 kg. 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 NF** 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 ČSN 64 1301 and ČSN 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.

BETOLIT EP 0-1 DC NF 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.











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| 7-21/072013  |               |  |
| EN 13813:2002<br>SR-C50-F30-B2-AR0,5-IR10  |               |  |
| BETOLIT EP 0-1 DC NF Low viscosity epoxy resin modified by non-toxic reactive thinner with nanofillers |               |  |
| 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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