

BETEC[®] 881

Flowable Epoxy based grouting and anchoring mortar

Product description

BETEC[®] 881 is a high performance, flowable epoxy based grout for anchoring and filling.

The components are already pre-scaled for easy and fast miscibility.

Advantages

- High compressive strength and excellent flexural strength development for static and dynamic loads requirements
- Exceptional rheology for fast and easy pouring.
- Excellent resistance against chemical substances such as alkalis, acids, hydrocarbons and mineral oils.
- The components are already pre-scaled in the right ratio for easy miscibility.
- Solvent-free, free of nonylphenol and benzyl alcohol.

Application areas :

Grouting applications where maximum performance and durable connections are required:

- Grouting and anchoring of machines and industrial structures.
- Rail anchoring and underfilling in industry and MRT segment.
- Anchoring of bridge support structures.
Grouting of steel structures.

Product Properties

Technical Data/Properties(*)

		BETEC [®] 881
Parameter	Unit	Values* (1)
Grain size	[mm]	0-2
Grouting height/installation thickness	[mm]	5 – 50
Consistency	[-]	high flowable
Mixing ratio	[l /25 kg]	Component A: Epoxy resin Component B: Polyamine hardener Component C: Filler
Processing time	[min]	20 – 30

Passable at + 10 °C at + 20 °C	[hours]	after 18 after 10
Complete hardening at + 20 °C	[days]	after 7
Processing temperature ⁽⁴⁾	[°C]	+10 until +30
Consumption	[kg/m ² /mm]	≈ 2
Compressive strength ⁽²⁾ 24 h 28 d	[N/mm ²]	≈ 40 ≈ 70
Flexural strength ⁽²⁾ 24 h 28 d		≈ 20 ≈ 40
Compressive strength class ⁽³⁾	[-]	C 50/60
Adhesion to concrete (blasted surface)	[N/mm ²]	≈ 3
Adhesion to steel (blasted surface)	[N/mm ²]	≈ 15
Shelf life	12 months Between 10 °C and 30 °C, dry and stored frost-free in original sealed containers. Protect from direct sunlight.	
Packaging	20 kg combi tin bucket (resin/sand mixture lower part, hardener/component lid) 45 combi buckets per pallet (900 kg)	
Colour	Agate / Grey	

(1) Typical values of self-monitoring. All tests were carried out under laboratory conditions (20 °C and 60 % rel. Humidity).

(2) The compressive strengths shown are prism strengths.

(3) According to EN 206-1:2001 in combination with DIN 1045-2.

(4) Material, substrate structure and environment during application

Application

1. Preparation of substrate

- Substrate preparation has to be according EN 1504-10 section 7.
- The substrate has to be free from dirt, grease, laitance, loose concrete, loose particles or layers which could adversely affect adhesion.
- Remove all damaged concrete and prepare substrate by sand or grid blasting, high pressure water jetting, or other methods until base concrete is exposed, offering sufficient roughness (bond) and open pores.
- The substrate must be frost-free and have a cohesion of minimum 1.5 N/mm².
- The maximum residual moisture content of the substrate must be ≤ 4 %. The substrate temperature must be at least 3 °C above the ambient dew point temperature.
- Metallic substrates must be prepared accordingly (degree of purity SA 2½)

2. Mixing

- Resin and hardener are supplied in the proper ratio.
- Before adding the hardener mix the filler and Epoxy resin until a homogeneous mix appears.
- The product must be mixed using a suitable slow-speed forced action mixer. The mixing head must be completely immersed in the mix. During mixing the mixer shall also stir thoroughly material at the ground and the sides of the mixing container.
- The hardener component must be completely emptied into the pre-mixed resin/filler mixture.
- The mixing time depends on the type of mixer. The minimum time is 5 minutes.
- In order to obtain a homogeneous mixed material, after mixing the material needs to be re-potted into a separate container and mixed again thoroughly.

3. Application

- The material is always applied by pouring. Material always has to be poured from one side or corner in one continuous application to avoid air-entrapment.
- A dense and non-absorbent formwork is necessary. This formwork must be greased beforehand to avoid adhering to the material. To prevent air entrapment, sufficient ventilation holes must be provided.
- Do not vibrate.

4. Curing

- In cold conditions cover with insulated tarpaulin, polystyrene or other insulating material.
- Protect surfaces against frost and rain for at least 12 hours. If moisture is exposed to early the hardening of the surface material can be disturbed.
- It is recommended to not remove the formwork for at least 48 hours.
- The after-treatment should be at least 2 days.
- The after-treatment should take place as soon as possible, at the latest when the material surface starts to set.

5. Cleaning and maintenance

- Mixing and application equipment should be cleaned immediately with suitable solvent. Hardened material needs to be removed mechanically.

6. Special remarks

- Low temperatures slow down the material flow and delay the early strength development. High temperatures accelerate the strength development and decrease the open time of the material.

Health and safety

BETEC® 881 is an epoxy resin-based product and can cause irritation of the skin and mucous membranes; therefore, these must be protected during processing. Always wear protective clothing, gloves and safety glasses and avoid inhaling fumes and dusts. Ensure sufficient ventilation and, if possible, wear a suitable protective mask. Remove splashes on the eyes and skin immediately with plenty of clean water. If the irritation persists, consult a doctor. For detailed information, please refer to the safety data sheet of the product. MSDS can be obtained from GCP Applied Technologies or from our website.

For technical information :

GCP Germany GmbH
Alte Bottroper Straße 64
45356 Essen

T. +49 (0) 201 86147-0

F. +49 (0) 201 619475

E. info.betec@gcpat.com

Customer Service: +49 (0) 5281 7704-65 · auftrag.betec@gcpat.com

We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate, and is offered for consideration, investigation and verification by the user, but we do not warrant the results to be obtained. Please read all statements, recommendations, and suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation, or suggestion is intended for any use that would infringe any patent, copyright, or other third party right.

BETEC® is a trademark, which may be registered in the United States and/or other countries, of GCP Applied Technologies Inc. This trademark list has been compiled using available published information as of the publication date and may not accurately reflect current trademark ownership or status.

© Copyright 2016 GCP Applied Technologies Inc. All rights reserved.

EQ.

Printed in Germany | 03/2022 | Data-sheet no. 1.40 RV 0

This document is only current as of the last updated date stated below and is valid only for use in the United Kingdom. It is important that you always refer to the currently available information at the URL below to provide the most current product information at the time of use. Additional literature such as Contractor Manuals, Technical Bulletins, Detail Drawings and detailing recommendations and other relevant documents are also available on www.gcpat.uk. Information found on other websites must not be relied upon, as they may not be up-to-date or applicable to the conditions in your location and we do not accept any responsibility for their content. If there are any conflicts or if you need more information, please contact GCP Customer Service.

Last Updated: 2025-05-13

gcpat.uk/solutions/products/betec-grouts-and-cementitious-mortars/betec-881