# **BETOPOX® ANCLAJES**

Fluid, self-levelling mortar based on three-component epoxy resins, for implementing anchorings and fillings.

**BETOPOX® ANCLAJES** is a fluid, solvent-free, epoxy resin based, self-levelling mortar with high mechanical strength, additives and selected granulometry silica aggregates, specially designed for filling, attaching and anchoring various elements by pouring. It complies with the requirements of standard EN 1504-6.

#### **FIELDS OF APPLICATION**

- · Attaching rebars, bolts and anchorings.
- · Profile anchorings for joint lips.
- Filling cracks, fissures and hollows in the concrete.
- Filling under substrate plates in bridges or machine beds.
- Filling for metallic pillar bases.
- Anchoring and filing railway and bridge crane rails.
- Attaching machinery subject to static and dynamic stress, vibrations and fatigue.
- · Repairing horizontal and vertical structural formwork elements by direct pouring or injection.

# **PROPERTIES**

- Excellent adhesion to virtually all construction materials: concrete, mortar, steel, stone, brick, metal, glass, etc.
- Since it does not contain solvents, it catalyses without losing volume or shrinking.
- Very high mechanical strengths against static and dynamic loads, vibrations and fatigue.
- · High abrasion strength.
- High chemical resistances to diluted acids, bases, salts, mineral oils, fuels, pure and residual waters.
- Impermeable to water vapour.
- No primer required.
- High fluidity, thanks to its fine granulometry, means it can be easily injected, pumped or applied by gravity.
- · Very high workability.

#### **HOW TO USE**

# Preparing the substrate:

The substrate must be strong, dry, clean and free of dirt, grease or oils.

Poorly adhered particles, oxides, slurries or husks, must be removed completely using mechanical means. The base is to be sufficiently rough, and it is to be prepared with mechanical means, like sandblasting, sanding, milling, etc. and with 3 % maximum humidity.

#### Mixing:

Pour Component B over Component A and beat with a low revolution mechanical stirrer (maximum 300 rpm) for 1 minute, to obtain a mixture with uniform appearance.

Then gradually add all of component C (aggregate) and continue stirring until a fluid, even mortar is obtained. Try to avoid trapping air during the mixture.



# **Application:**

Pour the mixture using a rod to ensure complete filling. When applied under seating plates, ensure enough pressure to facilitate filling. Outlets for the air must be provided, to prevent any air getting trapped. If pouring into moulds or formworks, the surfaces must be insulated with plastic material, or by applying the suitable release agent, to prevent the mortar from adhering.

# **Tool cleaning:**

The tools are to be cleaned with universal solvent immediately after use. Once hardened, it can only be removed mechanically.

#### COVERAGE

Approximately 1.9 kg per litre.

#### **PACKAGING**

Units of 2 kg and 20 kg.

#### **STORAGE**

24 months, in its original closed packaging, in a fresh, covered place, protected from moisture, sunlight and freezing temperatures.

# INDICATIONS TO TAKE INTO CONSIDERATION

- Do not apply in wet weather, or at temperatures below +5 °C or over +30 °C. With low temperatures, its pot life is longer, and with high temperatures it is reduced.
- Do not prepare partial mixtures of the contents of the packagings of the components.
- Do not add solvents or other substances that may affect the properties of the material.
- In hot weather, keep the material cool and protect it from direct sunlight. The real working period in hot temperatures can be extended if the material is kept cool, both before and after mixing it.
- The average age of the concrete must be at least 28 days.
- Do not apply to substrates with more than 3 % humidity.

# **TECHNICAL DATA**

Maximum aggregate size	2 mm	
Mixture density	1.90 ± 0.10 g/cm <sup>3</sup>	
Application temperature	+5 °C to +35 °C	
Pot life	45 minutes	
Total hardening	7 days	
Hardness (Shore D)	≥ 80	
Adherence on concrete	≥ 3 N/mm²	
Adhesion on steel bars	Smooth ≥ 4 N/mm <sup>2</sup> Corrugated ≥ 14 N/mm <sup>2</sup>	

MECHANICAL STRENGTHS (N/mm²) 20 °C					
	1 day	3 days	7 days		
Compression	> 50	> 65	> 70		

# **CE MARKING**



EN 1504 - 6

Epoxy mortar for anchoring steel rebars, used for structurally strengthening the concrete.		
Pull-out resistance, under 75 KN load	≤ 0.6 mm	
Chloride ion contents	≤ 0.05 %	

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Glass transition temperature	≥ 45 °C
Tensile yield strength under 50KN load (3 months)	≤ 0.6 mm
Reaction to fire	NPD
Emission of hazardous substances	According to 5.3. See SDS



# **HEALTH AND SAFETY**

All the information about conditions of usage, use, storage, transport and removing chemical waste is available on the product Safety Data Sheet.

The product and its packaging must be disposed of according to current legislation and it is the responsibility of the product end user.

### **LEGAL NOTICE**

The data contained in this document are based on our experience and technical knowledge, gained during laboratory assays, and our bibliography. We will not be responsible for any other product applications not indicated in this file. The dosage and consumption data are only guidelines, based on our experience, and may alter due to atmospheric or on-site conditions. For correct dosage and usage amounts, it is necessary to conduct a trial or assay "in situ", for which the client is responsible. If you have any doubts or require additional information, please contact our Technical department. April 2020.



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