



Bia-Crete HS-1040

High Strength Structural Repair Filler

Bia-Crete HS-1040, Cement based, one component, polymer and fibre reinforced, thixotropic, high strength repair mortar.

Areas of Usage

- Repair and maintenance of surface defects of high-strength concrete elements
- In making bevels at compound locations,
- In upholstery concrete repairs,
- During repairs of sea structures,
- Coating of concrete for protection against sulfate and chlorine effects,
- Used to repair tie-rod holes and core gaps.

Advantages

- Only mixed with water, easy to apply,
- Provides high adherence to concrete and reinforcement,
- It has high pressure resistance,
- High thixotropic properties,
- Waterproof,
- No primer required,
- Does not shrink,
- Takes fast strength,
- It is resistant to chlorine, sulphate and oils.

Technical Specification

Structure of Material	: Mineral fillers, fiber and polymer reinforced special cement
Color	: Gray
Pressure Resistance	: (TS EN 196) 1 day: 24 N/mm ² 7 days: 50 N/mm ² 28 days: 65 N/mm ²
Bending Resistance	: (TS EN 196) 28 days: 7 N/mm ²
Concrete Adhesion	: (TS EN 1542) 28 days: 2 N/mm ²
Elasticity Module	: 28 days: 20 N/mm ²
Application Thickness	: Min 10 mm / Max 40 mm
Application Floor Temperature	: +5°C / +30°C
Service Temperature	: -20°C / +40°C
Usage Time	: +20°C 30 min.
The duration of walkable on top	: 24 hours
Full Curing Time	: +20°C 28 days
Mixture Density	: 2,25 kg/l

Note: Above values are given at +23°C and 50% relative humidity. High temperatures shorten the duration, lower temperatures prolong the duration.

Preparation of Surface

The surface to be applied must be solid, cleaned of all kinds of oil, rust, paraffin, paint, bitumen residues and all loose parts which will prevent sticking to the floor. Crushed surfaces to be repaired should be as straight as possible. Water must be drained from surfaces that are excessively wet and watery. Dry surfaces should be slightly moistened.

Preparation of Mortar

The appropriate amount of water is poured into a clean mixing bowl. On the **Bia-Crete HS-1040** is added slowly while stirring with a mixer of 400 - 600 rpm. The mixture is stirred for about 3 - 5 minutes until it is completely homogeneous and allowed to setting for about 3 - 5 minutes. Then again 30 sec. are mixed and ready for application. There should be no lumps in the material.

Mixing Rates

Bia-Crete HS-1040	For 1 kg powder	For 25 kg kraft bag
Mixture Amount	0,17 litre	4,25 litre
Mixed Density	2,25 kg/lt	

Application

The prepared mixture is applied by trowel or spraying so that it does not exceed 4 cm on one floor. More thickness should be applied in floors where required. When the flat finish is desired, the material is expected to draw water and the surface is finished with wood or steel trowel by sprinkling water on the surface. In applications exposed to outdoor weather conditions, extremely hot and windy environments should be protected against rapid drying with surface wet sack or curing material for 48 hours.

Points to Consider

Avoid application at temperatures below +5°C and above +35°C. Water usage should not be added to the spent water for the past usage period; the surface should not be pasted on the mortar, the mortar should be scraped from the surface and the new material should be prepared and combed. In addition, applications should be avoided on surfaces that are frozen, melted or at risk of freezing within 24 hours, or in extremely hot, rainy or windy weather.

Consumption

Approximately 19 - 20 kg / m² powder should be used to obtain 1 cm thickness.

Packing

25,00 kg

Shelf Life

It is 1 years from the date of manufacture in the appropriate storage conditions. Opened packages should be kept tightly closed in suitable storage conditions and used within 1 week.

Storage

It should be stored in original unopened package, in cool and dry environment, protected from freezing. In short-term storage, maximum 3 pallets must be placed on top of each other and it must be shipped with the first-in first-out system. The pallets should not be placed on top of each other for long periods of storage.

Security Precautions

During the application, it must be used, in accordance with the Occupational Health and, Safety, the work clothes, protective gloves, goggles. Due to the irritant effects of curing materials, the components should not come into contact with the skin and the pore, in case of contact with plenty of soap and washed, if swallowed, seek medical advice immediately. Application areas should be ventilated and food and drinks stuffs should not be put into application areas. It should be stored at places where children can not reach it. For detailed information safety data sheet (Material Safety Data Sheet).

Responsibility

The information given in this technical document is based on our scientific and practical knowledge. Orkim Ortaklar Boya Sanayi ve Pazarlama A.Ş. it is only responsible for the quality of the product. Orkim Ortaklar Boya Sanayi ve Pazarlama A.Ş. shall not be held liable for any consequences which may arise from outside of the written suggestions about where and how the product will be used and/or due to incorrect use. The responsibility of applying our product correctly is the responsibility of the user.

This technical document is valid until the new edition is printed and invalid the old editions (01/2017).