

byk®



BYK 4014 REPAIR

High Performance, Thixotropic Structural Repair Mortar

BYK 4014 REPAIR is cement based, polymer modified, one component, fiber additive, high performance, thixotropic structural repair mortar.

In compliance with EN 1504-3 /R4

FIELDS OF APPLICATION

- Superficial repair and smoothening of concrete construction elements,
- Repairing and plastering of walls and ceilings,
- Used in surface repair before ceramic and porcelain application.
- It is used for surface smoothing and chamfer application before waterproofing applications.
- It is used in the repair of concrete surfaces under water and soil.

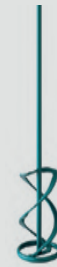
ADVANTAGES

- Mixed with water, easy to apply,
- Applicable to all concrete surfaces,
- Do not shrink
- Provides high adherence to concrete and plastered surfaces,
- Provides smooth surface finish,
- Resistant to thaw and frost,
- Used in inside and outside, horizontal and vertical applications.

TECHNICAL FEATURES

Material Structure	Contain mineral fillings polymer-reinforced special cement	
Density		2,25 kg/lit
Color		Gray, White
Compression Strength	28 days	35 N/mm ²
Bending Strength	28 days	7 N/mm ²
Bond Strength (Concrete)	28 days	2 N/mm ²
Application Thickness		5 mm-40 mm
Application Surface Temperature		+5°C / +35°C
Service Temperature		-30°C / +80°C
Working Time		30 min
Fully cured in		28 days

The values above are given for +23°C and 50% relative humidity. While higher temperatures shorten the period, lower temperatures extend it



APPLICATION PROCEDURE

Preparation of the Substrate

The surfaces to be repaired must be robust and free from all kinds of dust and dirt. Surfaces requiring deep repair should be repaired with **BYK 4014 REPAIR** repair mortar. The surface should be slightly moistened with water.

Mixing

The appropriate amount of water described on the package is poured into a clean mixing container. **BYK 4014 REPAIR** is slowly added to the water and mixed with an electric mixer of 400-600 rpm and suitable mixer for about 3 minutes until it becomes homogeneous. There should be no lumps in the material. After the material has been rested for 3 minutes, it is mixed again for 1 minute and ready for application.

Mixing Rates

For 25 kg bag of **BYK 4014 REPAIR Gray** approximately 4,25-5,25 lt of water should be used.
For 25 kg bag of **BYK 4014 REPAIR White** approximately 4,50-5,50 lt of water should be used.



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Application

The prepared mixture is applied with a single layer of trowel at a thickness of 5-40 mm. After the mortar draws itself, the surface is sprinkled with water and the surface is smoothened with sponge, wood or steel melee. In applications performed in extremely hot, dry and windy environments, protection against rapid evaporation should be made for 48 hours with wet scrub cloth or curing materials.

Consumption

In order to obtain 1 mm thickness, 1,5 kg – 2 kg/m² powder material must be used.

Package

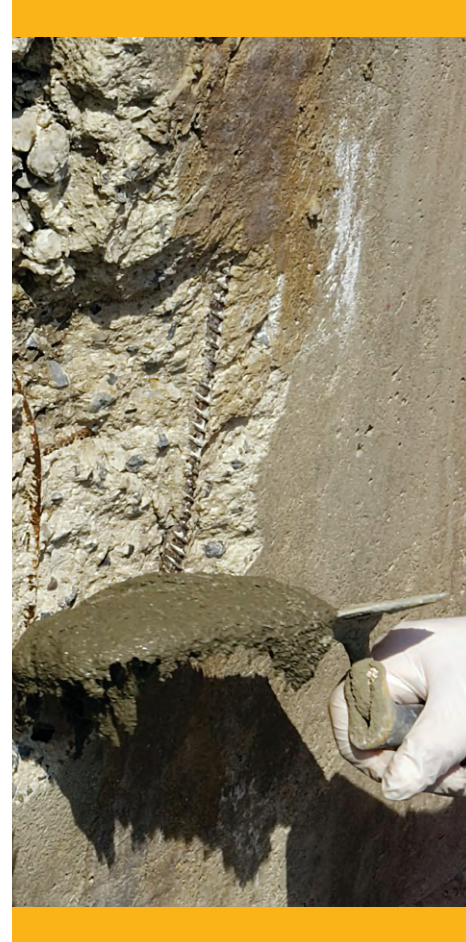
25 kg Kraft Bag

Cleaning of Application Tools

Tools and equipments should be clean with water after application.

Watch Points

- **BYK 4014 REPAIR** application, suitable temperatures should be expected if ambient and surface temperature are below +5°C or above +35°C. It should not be applied in extremely hot, rainy or very windy weather.
- It should be protected from sun, rain, wind and frost for the first 24 hours in outdoor applications.
- Working and reaction times in mortars are affected by air temperature, humidity and floor temperatures.
- High temperatures accelerate hydration and the working time is shortened accordingly. Low temperatures slow down hydration, which extends the working time. For the material to complete the course, the floor temperature and ambient temperature must not fall below the minimum permissible temperature.



Shelf Life

Shelf life is 12 months from the date of production when stored properly at +5 oC to +30 oC at room temperature, away from direct sunlight. Opened packages should be consumed within 1 week by closing the mouths.

Storage

The product should be stored in its original package, in a cool and dry place protected from frost. For short term storage, maximum 2 palettes should be placed on top of each other and the shipment should be made on a 'first come, first go' basis. Palettes should not be placed on top of each other during long term storage.

Health and Safety Precautions

It is dangerous to approach the application sites with fire. Fresh air should be circulated in the storage and the application sites. During the application, a protective apparel, protective gloves, goggles and masks which comply with the Occupational Health and Safety Rules should be used. Due to the irritation effect of the uncured materials, the mixture should not come into contact with skin and eyes; in case of a contact, the affected area should be washed with plenty of water and soap; in case of swallowing, a physician should be consulted immediately. No food or beverages should be brought to the application area. The product should be stored and kept out of reach of children.

Disclaimer

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. **BYK Binyapi Co.** is only responsible for the quality of the product. **BYK Binyapi Co.** is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones.