

HighBuild R45

Special cement based, thixotropic, polymer modified structural repair mortar

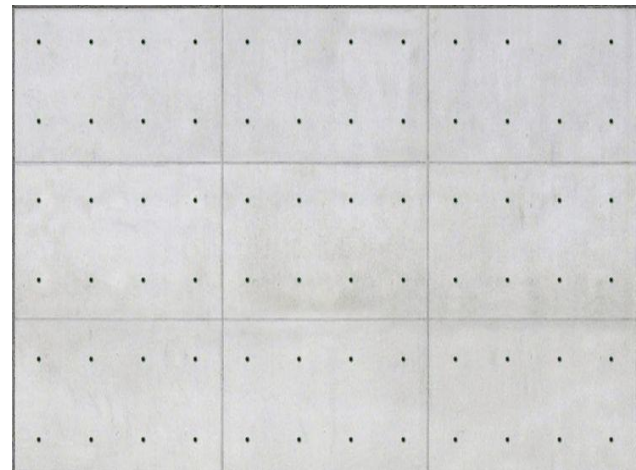
Product Description

HighBuild R45 is a single component, special cement-based, thixotropic, polymer modified structural repair mortar which contains silica fume, (alkali and chemical resistance) and PP fiber added. Suitable for vertical and overhead application and it is offered for applications from 10 mm to 45 mm.



Areas of Application

- Repair of all types of structural concrete where high strength and extremely low shrinkage properties are required.
- Filling hollows that arise from settling error.
- Ports and marine structures.
- Concrete bridges.
- Filling hollows on the surfaces of concrete prefabricated elements and walls.
- Leveling of slab floor before the final coating.
- Repairing of corners and edges.
- For the repair of vertical and overhead elements.
- As a repair mortar for all structural elements in buildings, water retaining structures, industrial plants, bridges, etc.



Disposal

Empty packages can be thrown to the collection bins according to regional-local regulations or recycling rules. After drying up and hardening the used waste material, throw it away as construction waste material. It is dangerous to dispose of product wastes by burning them.

Points to Take into Consideration

Keep the products in places out of reach of children. Always keep the cover of the products closed. It is recommended to wear gloves and goggles during operation. In case of contact of skin with the material, it should be washed with soap and water immediately. In case of contact with the eye, see your doctor immediately.

General Considerations

Above-mentioned product information and descriptions are prepared for guidance purposes as a result of our experiences and meticulous studies. The variety of related materials and their different construction and operation conditions can not be controlled or influenced by us individually. For applications beyond our control, the guarantee status is only limited to the quality of sold product. Except the manufacturing of the product, no guarantee is given for application. This technical sheet invalidates all the existing sheets. The quality of the performed job may vary depending on your professional use of the product. If you are hesitant, make a little test or get technical help.

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Advantages

- Shrinkage controlled polymer modified structural repair mortar.
- Single component, easy to apply.
- Extremely low permeability to water, providing excellent protection to steel reinforcements and host concrete.
- Thixotropic properties allowing extra high build for vertical and overhead applications.
- Suitable for internal and external applications.
- Cost effective, hand applied no formwork is required.

Thicknesses and size limitations:

HighBuild R45 can be applied in single applications for sections up to 45 mm.

Method of use

Surface preparation

- All damaged and weak concrete should be cut back to reach sound concrete and / or to a minimum depth of at least 10mm.
- Corroded steel reinforcement should be grit blasted to remove all rust traces.
- Remove all concrete from around exposed steel reinforcements by 10mm thickness.
- The perimeters of the repair area should be saw cut to a minimum depth of 10mm.
- The prepared area should be cleaned thoroughly by brush and /or compressed air.

Curing

As HighBuild R45 is a cementitious based material, it should be cured in a similar method to concrete.

Packing

HighBuild R45 is available in 25 Kg bags.

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Technical Data

Properties	
Appearance	Grey powder
Density	Approx. 2330kg/m ³
Compressive strength to BS 1881;Part 116	> 25Mpa @ 1 Day > 45Mpa @ 7 Days >65Mpa @ 28 Days
Water penetration to DIN 1048: Part 5	<5mm
Drying shrinkage to ASTM C 157-93 @ 7days @ 28days	<520 microstrain <720 microstrain
Rapid chloride permeability to AASHTO 277-93	<500 columns.
Tensile strength to BS 6319 pt.7	>5Mpa @ 28days
Flexural strength to BS 6319 pt.3	>8Mpa @ 28days
Min. application temperature	5 °C

Storage

HighBuild R45 has a shelf life of 24 months from date of manufacture if stored at temperature between 2 °C and 50 °C.

Fire

HighBuild R45 is nonflammable.

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