

# BC MORTAR 5000

## Epoxy resin based sealing compound

### Description:-

BC Mortar 5000 is a two component thixotropic compound based on high quality solvent-free epoxy resin systems. The material is supplied in pre-weighted quantities ready for on-site mixing and use. Once it is cured, it will form a completely impermeable surface ready for over-coating. BC Mortar 5000 is available as standard in Grey colour.

### Uses:

As a three component, part filled epoxy resin used to seal over cracks in structural materials such as concrete in aggressive environments. A pore sealer on horizontal and vertical surfaces eliminating minor irregularities.

### Advantages:

- Non-slump, can be applied to vertical surfaces and troweled into blow holes.
- Superior bond strength to virtually all substrates.
- Smooth paste consistency, easy to apply and finish.
- Good chemical resistance.
- Excellent adhesion.
- Compatible to over-coat with epoxy coating

### Technical Properties:

Volume solids	100%
Pot life @ 24°C (ASTM D2471:1999)	150 minutes
Compressive strength: (ASTM C579:2018)	1 day 30 N/mm <sup>2</sup>
	3 days 50 N/mm <sup>2</sup>
	7 days 70 N/mm <sup>2</sup>
Flexural strength: (ASTM C580:2018)	7 days cured 20 N/mm <sup>2</sup>
Tensile strength: (ASTM C307:2018)	7 days cured 14 N/mm <sup>2</sup>
Mix density	1.68 kg/L
Thickness	Up to 3mm
Adhesion to Concrete (ASTM D7234:2012)	> 2 N/mm <sup>2</sup>

### Preparation:

Clean the surface and remove any dust, unsound or contaminated material, plaster, oil, paint, grease, corrosion deposits or algae.


Surface should preferably be prepared using high-pressure water jetting or light abrasive blasting, followed by thorough washing to remove dust and remaining particles.

### Building Chemistry Industry

2<sup>nd</sup> Industrial Area Dammam .Kingdom of Saudi Arabia.

Email: [info@bcisaudi.com](mailto:info@bcisaudi.com) Website: [www.bcisaudi.com](http://www.bcisaudi.com)





Oils and grease deposits should be removed by steam cleaning, detergent scrubbing or the use of a proprietary degreaser. The effectiveness of decontamination should then be assessed by a pull-off test.

No independent priming system is required.

### **Mixing:**

The entire contents of the hardener can should be added to the base container and mixed thoroughly until a uniform grey colour and consistency are obtained, taking particular care to scrape the sides and bottom of the containers. It is recommended that mechanical mixing be employed using a Jiffy mixer on a slow speed electric drill.

### **Technical support:**

BCI offers a comprehensive range of high performance, high quality products suitable for use within all aspects of the concrete repair and protection industry. In addition, the company offers a technical support package to specifiers, end users and contractors, as well as on-site assistance.

### **Design Criteria:**

BC Mortar 5000 can be applied in sections 0.5 to 3.0 mm thickness in horizontal and vertical locations in a single application without the use of formwork. Greater thicknesses than those specified can be achieved by application of subsequent layers

### **Application:**

Apply the mixed BC Mortar 5000 to the prepared substrate by spatula, filling knife or steel float, trowel-ling onto the substrate to ensure positive adhesion and that all blow-holes and defects are completely filled to produce a smooth even finish. Application thickness will vary with profile and alignment of substrate.

Where application of multiple layers is required, this can be accomplished by applying the additional layer between 2 to 8 hours at 25°C after the first layer application. This time should be reduced at higher temperature. Beyond this open time abrade the surface of BC Mortar 5000 with sandpaper, then remove the dust generated using clean rags and BCI Solvent 102 prior to apply the second layer. Alternatively, the first layer of BC Mortar 5000 may be "scratch keyed" whilst wet to provide mechanical key for subsequent layers.

### **Finishing:**

Any ridges left by the trowel can be brushed out while the material is still wet or ground down with a carborundum stone before over-coating.



### **High temperature working:**

At ambient temperatures above 35°C BC Mortar 5000 will have shorter pot life and working life. The materials should be stored in the shade or in air- conditioned environments and should not be applied in direct sunlight.

### **Cleaning:**

BC Mortar 5000 should be removed from tools, equipment and mixers with BCI Solvent immediately after use. Hardened material can only be removed mechanically.

### **Limitations:**

Do not mix part packs under any circumstances. BC Mortar 5000 should not be exposed to water during application. Exposure to heavy rainfall prior to final set may result in surface scour. If any doubt arises concerning temperature or substrate condition, consult the local BCI Office. This should not be used when the temperature is below 5°C and falling.

The Technical specification information and recommendation given one based on the current technical knowledge and the user or his representative is recommended to check the suitability of the product Building chemistry industry reserves the right to amend the technical characteristic of the product as part of ongoing research and development. As the work execution is beyond the direct and continuous control of Building chemistry industry no guarantee and or responsibility is assumed on the performance of work completion executed with use of our products.

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