

# PATCHFIX REPAIR MORTAR

# NON-SHRINK CEMENTITIOUS REPAIR MORTAR

#### **TECHNICAL SHEET 11/07/2022**

### **DESCRIPTION**

Bostik Patchfix Repair Mortar is a high strength, pourable, shrinkage compensated cementitious structural repair mortar. It is formulated to provide excellent resistance to sulfates, chlorides and corrosion protection.

# **FEATURES AND BENEFITS**

- · Shrinkage compensated
- · Contains an intergral corrosion inhibitors
- · One-component, easy mixing and handling
- Excellent workability, bonding to concrete. High abrasion and impact resistance
- Low permeability. Provide protection from chloride attack and carbonation
- · Create a durable repairs

# **RECOMMENDED USES**

- · Patching and repair of damaged concrete
- Structural repairs in horizontal concrete
- · May be used in formed vertical and overhead repairs
- Bridges, parking garages, and tunnels
- · Repair of spalled concrete, piers, dams, sea walls etc.
- Repairing concrete subject for chemical corrosion

# **MIXING**

Care should be taken to ensure that Patchfix Repair Mortar is thoroughly mixed. Pour approximately 90% of the mix water into the mixing container, then slowly charge the mixer with Patchfix Repair Mortar. Slowly add the remaining mix water as required to obtain the desired consistency. Mix for approximately 3–5 minutes or until a homogeneous consistency is obtained. Discard any unused grout that has stiffened or hardened.



## **PACKAGING**

Patchfix Repair Mortar is supplied in a 25 kg polylined bag.

## **STORAGE**

Patchfix Repair Mortar has a shelf life of approximately 12 months if kept in a dry environment away from moisture. Store in a cool place away from direct sunlight. Keep containers tightly closed after use.

# SURFACE PREPARATION

Ensure the concrete is structurally sound and fully cures. Saw cut or cut back the extremites of the repair locations to a depth of atleast 10mm to avoid feather edging and to provide a square edge. Break out the complete repair area to a minimum depth of 10mm to sewn edge. Clean the surface and remove dust, unsound or contaminated material, plaster, oil, paint, grease, corrosion deposits or algae. Where breaking out is not requires, roughen the surface and remove oil and grease deposits. Remove all oxidation and scale from exposed reinforcing steel. Steel should be cleaned to a bright condition, paying particular attention to the back exposed steel bars. Gritblasting is recommended for this purpose. Steel reinforcement should be coated with Flowfill Non-Shrink Grout prior to application of repair mortar.

### **PLACING**

Formed Application

- 1. Immediately before placement, drain pre-soaking water from the form, leaving a saturated substrate with no excess water
- 2. For vertical and overhead applications, place air-relief vents at high points in the repair area to prevent voids from entrapping air
- 3. Apply the repair materia with sufficient strength pressure to ensure intimate contact with the substrate
- 4. Remove forms when sufficient strength has developed.

## **HORIZONTAL APPLICATION**

- 1. Scrub a bond coat of Patchfix Repair Mortar F5 into the prepared saturated surface with a stiff-bristle broom or brush. Don't add excess water. Apply only an amount of bond coat that can be covered with concrete before the bond coat dries. Don't re-temper the bond coat
- 2. Place the concrete and level as needed to match the original concrete elevation. Where rapid drying exists, use appropriate evaporation reducer. Finish the final surface as required.

#### **CURING**

All cementitious based mortars must be protected against excessive rapid surface drying and evaporation. Patchfix Repair Mortar must be cured immediately after finishing in accordance with good concrete practices.

# COMPREHENSIVE STRENGTH Tested in accordance to ASTM C 109

AGE	in MPa	in psi
7 days	20-27 MPa	3000-4000 psi
28 days	34-41 MPa	5000-6000 psi

## SETTING TIME

Initial Set	4-5 hours
Final Set	6-7 hours
Bleeding	0%

### **PRE-CAUTION**

- Do not add additional water. Unused grout that hardened should be discarded.
- Do not mix by hand. Mixing by hand does not provide sufficient strength for proper dispersion and for breaking up lumps to achieve a homogenous mixture.
- For large areas, apply grout in a continuous operation.
- Do not apply in less than 5mm in dept, not greater than 50mm.
- · Unrestrained areas must be kept to a minimum.
- Cure time and set will be extended when applied at temperatures lower than 5°C

**Fire Hazards:** Non-combustible, however, if involved in a fire use water fog, foam or dry agents. Avoid breathing of products of combustion.

**For Spills:** Clear area of all unprotected personnel. Slippery when wet. Wear protective equipment. Collect and seal in properly labeled drums.

# **TYPICAL PROPERTIES**

## MIXING CONSISTENCY

The table is guide to the typical water addition requirements for various consistencies. Liter of water per 25kg bag.

Water Demand	3.8 to 4.0L per bag

# FLEXURAL STRENGTH Tested in accordance to ASTM C 348

AGE	in MPa	in psi
28 days	4-5 MPa	580-725 psi

TENSILE ADHESION STRENGTH

Tested in accordance to ASTM D 4541; C 1583; D 7234; D 7522

Age (days)	
7 days	0.8-1 MPa
28 days	>1 MPa

## **COVERAGE**

A 25kg bag with 3.8 to 4.0L of water will yield approximately 10-12 liters of mixture. 80-90 bags required per cubic meter. Approximate coverage is obtained if mixed in accordance with recommended procedures and accurately measured water content The recommended application thickness is 5-50mm for horizontal application

Thickness can be increased by additional layer, allowing the previous layer to dry completely prior to application of the consecutive coating. It is optional to bond the next layer with primer to promote extra adhesion strength

# DISCLAIMER:

The information in this Technical Data Sheet is intended for the assistance of users and is of a general nature. It reflects the extent of our knowledge and experience of our products and is based on tests which we believe to be reliable. However, no guarantee of accuracy can be given due to the wide range of surfaces, environmental and field conditions and variations encountered in raw materials, manufacturing equipment and methods at the place where the work is performed. Some of these will be beyond our knowledge and control. Users are asked to make sure that the TDS in their possession is the latest issue. Likewise, we recommend users carry out their own tests to determine the suitability of the product for their particular purposes.

Any claim for a defective product must be filed within 30 days of discovery of a problem and must be submitted with written proof of purchase. Claims are not transferrable or assignable and extend only to the original purchaser/user. Bostik reserves the right to inspect and alleged failure and no responsibility will be accepted unless Bostik is given the opportunity to do so. Bostik limits its liability to the replacement of the product/s proven faulty.

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