SMARTCARE

asianpaints BERGER

Smartcare Repair FBR

Non-Shrink Cementitious repair mortar

Description

SmartCare Repair FBR is a Single component cementitious high strength repair mortar which is reinforced with special fibers for enhanced physical properties. By adding clean water, the product produces highly thixotropic repair mortar suitable for structural concrete, Precast and masonry repairs especially in vertical and overhead repair application. The product can be applied by hand or sprayed using suitable machine. The product is fully compatible with Smartcare Concrete repair product range.

Uses

- SmartCare Repair FBR can be used for repairing honey combed surfaces and other defects in all structural elements such as repair on marine structures, beams, columns, walls and slabs in high rise buildings, Piers and cross beams on highway structures, Sea walls, Concrete & precast blocks and Heavy concrete structural repair works.
- SmartCare Repair FBR can be used for repair of damaged, delaminated or spalled concrete, chipped or cracked concrete.
- SmartCare Repair FBR when used in conjunction of expansion where repair arises, Smartcare Repair epoxy bonding agent shall be used to achieve compatibility
- SmartCare Repair FBR is suitable for reinstating low steel cover where superior chloride and carbon dioxide resistance characteristics is required.
- SmartCare Repair FBR can be used for filling Voids greater than 10 mm deep. This product is specially formulated
- for heavy repairs up to 50 mm thick at a time on horizontal areas and can be applied at thickness up to 25 mm at a time on vertical surfaces and up to 20 mm thickness when applied in overhead

Characteristics/ Advantages

- Easy Mixing and excellent workability for placing and finishing
- Excellent Compressive strength
- Excellent adhesion strength
- Low water permeability and water absorption
- Formulated for tropical climatic conditions.
- Designed for thick applications.
- Can be applied up to 50 mm thick in one layer for minimizing workmanship
- High modulus will ensure transfer of loads to hosting concrete
- Excellent resistance to chloride and carbon dioxide

Packing

25 kg Bag

Yield

14.5 Ltrs/ 25 kg Bag

Standards

Confirms to EN 1504-3: R4 class CC & 1881
BS 6319 Part 3
BS 6319 Part 7
ASTM C 579

Properties

Appearance	Granular grey powder
Compressive Strength ASTM C 579	>60 N/mm-
Flexural strength BS 6319 Part 3	>8 N/mm- at 28 days
Tensile strength BS 6319 Part 7	5.0 N/mm- at 28 days
Initial setting	2 hours @ 35°C
Final Setting	4 hours @ 35°C
Water Absorption	<3.0%
Fresh wet density	2.05 ±0.05 Kg/Ltr
Grain size	up to 3 mm
Special Ingredients	Fiber, Fillers, Polymer & binders
VOC	Very Low

Application Method

Preparation

- All repair areas must be clean, sound and free from all dirt, dust, loose material, oil, grease, paint coating etc. to allow for maximum adhesion.
- Cement laitance should be removed by wire brushing or scrabbling or any other mechanical means.
- Defective concrete, honeycombing and cold joints must be removed to obtain a clean surface.
- The edges of all repairs should be cut vertically to a minimum depth of 10mm.
- Dry and absorbent substrates should be thoroughly pre-wetted and the surface allowed to dry to a saturated (surface dry condition) before application commences.

The affected or damaged area of the concrete should be saw cut or cut neatly keeping the side of the area as square as possible. Feather edging must be avoided. Test the surface for soundness; remove all loose debris, dust and water.

In cases of new construction where the reinforcing steel has been exposed the reinforcing shall be prepared and cleaned from any concrete deposits.

In case of corrosion damaged reinforcement, corroded steel must be exposed and cleaned by sand blasting where possible or any other mechanical means, the cleaned steel must be primed with Zinc anode 500, 2K zinc rich epoxy primer.

Priming of the substrate

Generally priming of the substrate is not necessary however the concrete should be thoroughly soaked constantly, to a saturated surface dry condition prior to installation of the repair.
In situations where a chloride ion transfusion barrier is required, or enhanced bond strength or where the substrate is likely to be permanently wet or damp (e.g. water retaining structures, seawalls, etc.), SmartCare Repair Bonding Epoxy should be used.
For overhead repairs where soaking with water is not practical, an alternative method of priming is by the use of SmartCare Repair Bonding Epoxy
Generally priming of the substrate is not necessary however the concrete should be thoroughly soaked constantly, to a saturated surface dry condition prior to installation of the repair.
In situations where a chloride ion transfusion barrier is required, or enhanced bond strength or where the substrate is likely to be permanently wet or damp (e.g. water retaining structures, seawalls, etc.), SmartCare Repair Bonding Epoxy should be used.
For overhead repairs where soaking with water is not practical, an alternative method of priming is by the use of SmartCare Repair Bonding Epoxy

Mixing

It is recommended that only full bag of 25 kg is mixed. SmartCare Repair FBR should be mixed by mechanical means.
Single bag may be mixed using a slow speed drill and spiral paddle or forced action mechanical mixer.
Place the mixing water into the mixing bucket and add the SmartCare Repair FBR powder and mix for approximately
3-5 minutes until a smooth lump free consistency is achieved.
The water additions shall be 4 liters (approx.16%) per 25kg bag and ensure the homogenous mix. Depending on the
season and prevailing ambient temperature mixing water may be increased at the time of mixing up to (±0.5 Ltr) to
meet site requirement and type of application.
Note: In all cases the powder must be added to the water.

Application

SmartCare Repair FBR can be applied by hand and trowel, ensuring good compaction. SmartCare Repair FBR shall be applied at a minimum thickness of 10mm and a maximum layer thickness of 50mm. Deeper repair sections should be applied wet on wet in layers.
As soon as the SmartCare Repair FBR starts to stiffen, finishing can be done by wooden, plastic or steel float depending upon the type of finish required.
For spray application please contact our technical department

Curing

In line with good construction practices curing must be followed. Curing of the installed area should be

carried out either
by applying damp hessian and polyethylene sheet or by applying SmartCare curing compound

Coverage

A 25 kg bag of SmartCare Repair FBR will cover 1.45m- / 25 kg Bag @10mm thickness. This coverage is theoretical and
depends upon the surface profile of the substrate and the wastage.

Precautions & Limitations

• Temperature range: 5°C to 40°C. Outside this range, it is recommended to use hot mixing water (below 5°C) or cold water (above 40°C) depending on the circumstances, as well as increased care in protecting the surface
(covering with insulating materials).
• Solid and resistance supports to be used. Support is to be saturated with water a few hours prior to installation. All residual water to be removed prior installation.
• Do not mix with other hydraulic binders. Under no circumstances should any additives be used.

Cleaning

SmartCare Repair FBR should be removed from tools, equipment and mixers with clean water immediately after use. Cured material can only be removed mechanically

Shelf life & Storage Condition

SmartCare Repair FBR have a shelf life of 12 months if kept in a dry store in the original, unopened bags or packs at 25oC

Health & Safety Features

As with all chemical products, caution should always be exercised. Protective clothing, such as gloves and goggles, should
be worn (see packaging for specific instructions). Treat any splashes to the skin or eyes with fresh water Immediately.
Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.

Version No. V06 02/23. Please note that this datasheet supersedes all previous versions UAE

asianpaints BERGER WeAssure Helpline

For enquiries, feedback and complaints please contact or write to us at

Oman	:	800-01790	weassure.oman@asianpaints.com
U.A.E	:	800-27237437	weassure.uae@asianpaints.com
Bahrain	:	800-08098	weassure.bahrain@asianpaints.com
Qatar	:	+974-44693489	weassure.qatar@asianpaints.com