THE CORE CHEMICALS

Core Patch

Fiber Reinforced, Thixotropic Repair Mortar

Description

Core Patch is a one-component, dual shrinkage compensated high strength repair mortar with fiber reinforcement for structural concrete repair.

- Can be applied vertically or overhead by low-pressure wet spraying or hand troweling.
- High early and ultimate strengths.
- No additional bonding agent required.
- Good impact and thermal resistance.
- Impermeable to aggressive elements.
- Capable of vapour diffusion and resistant to frost and dew-salt.
- Resists the penetration of CO_2 and moisture (carbonization).
- Non-corrosive to steel or iron.

Recommended Uses

- Repairs to bridges, parking garages, tunnels etc.
- Repairs to piers, navigation locks, dams, sea walls and other marine structures.
- Repairs to industrial structures such as oil storage facilities, silo chim neys etc.
- Extensive repairs to beams, columns and other structural elements.
- Repair of structural members subjected to repetitive loading.

SERVICES

- Cementetious coating
- Crystalling Coating
- Addmixture
- Sealant
- Grout
- Epoxy primer
- Repair Mortar
- Flooring
- PU flooring
- PU coating
- Bitumen Coating
- Latex
- Waterstopper

Technical Data

TYPE		CorePatch
Color		Grey powder
Water/powder ratio, by weight		0.14
Density of freshly mixed mortar kg/dm³		2.3
Compressive strength,	1 d	850 PSI
(ASTM C109, 7cm cube)	3 d	200 PSI
	7 d	5300 PSI
Flexural strengt	28 d	6600 PSI
ASTM C348)	28 d	> 1,305 PS
Tensile strength		
(ASTM C496)	28d	> 580 PSI
Water penetration (DIN 1048)		<5 mm

Important Information:

Supplied in: 25 kg bags.

Storage: Dry, frost free area.Out of direct sunlight.

Shelf life: 12 months.

Hazard Class: No dangerous goods. Consult MSDS for details.

Consumption:

- One 25kg bag of Core Patch mixed with 3.5 liters water yield approximately12.4 liters.
- Approximately four bags of 25kg are]required per 1m² area at 50mm thick application.

Application Guidelines

Surface preparation:
Anything that can impair adhesion must be removed including any grease, oil, dust, curing compounds or any previous coating using grit ballasting, milling or grinding. The concrete surface must be chipped to ensure better bonding. New concrete should have compressive strength of at least 25 MPa. Prepare the final surface free from dust and debris and to a rough profile with at least 5mm level difference between surface troughs and peaks. Where rebars are corroded, cut back the concrete to at least 20mm behind rebar. Grit blast around the rebar to remove corrosion products. Replace the affected part of rebar if the diameter after grit blasting is found reduced by more than 20% of the original diameter.

Mixing:
Core Patch must be mixed mechanically. Use a heavy-duty, slow speed drill with spiral mixing paddle or pan type mixers etc. Place approximately 80% of the required water in the mix. Keeping the mixer running, add powder slowly. Mix for 3–4 minutes or until a lump-free mix is obtained. Add from the balance 20% water, while continuing to mix, until the desired consistency is achieved.

Placing:
Core Patch has been formulated for both trowel and spray application, depending on the size and location of the repair area. For best results, before application by trowel, apply the first layer by gloved hand including packing behind the rebar, and then firmly trowel on the rest to the required thickness. When applying by hand, force Core Patch tightly on to the substrate to ensure sturdy contact with the pre-wetted substrate**.**
If applying by spray; for best results, utilize the services of an experienced nozzleman. Finish the final surface smooth using a wood, plastic or synthetic sponge faced trowel. When the material has stiffened to the point where finger pressure lightly marks the surface, give a final firm trowelling using a steel float.

Curing:
Particular care is required in hot and/or windy conditions. Cover the work with plastic sheet fixed over wet hessian or wet foam rubber. All the standards mentioned in ACI 318 for concrete curing must be followed.

The Core Chemicals

Office 5, 129 C 24th Commercial St,
DHA Phase 2 Ext. Karachi

info@thecorechem.com
www.thecorechem.com.pk
+92 339 078 6823