webertec 311 MC-HCS (KSA)

Non shrink high strength fluid micro-concrete

Technical and repair mortars

Leb	Jordan	Egypt	UAE	Qatar	Kuwait	KSA	Oman
-	-	-	-	-	-	38kg	-

38kg kit: 25kg powder+13kg aggregates.

PRODUCT

webertec 311 MC-HCS is a ready-to-use micro concrete made of selected sand and aggregates, special cement and additives to provide a durable properties.
It can be used where high compressive strength is required. **webertec 311 MC-HCS** is specially formulated to produce a shrinkage compensating micro concrete with high performance. **webertec 311 MC-HCS** can be applied in thickness ranging from 50mm to 300mm per layer although greater thickness up to 500 mm can be practiced depending on the design of the repair job and level of steel reinforcement.

SCOPE OF USE

- Pile head repair
- Assembly of pre-cast parts made of reinforced or pre-stressed concrete
- General void filling such as coring in concrete, jointing.
- Keying bridges
- Casting foundations for industrial equipment and heavy machinery
- Deep repair of structural concrete elements such as slabs, beams, columns and footings
- Concrete jacketing
- Closing or filling around pipes in water tanks / swimming pools.

ADVANTAGES

- Non-shrinking
- Durable
- Low water absorption
- Low RCP
- High strength
- Easy to apply
- Resistant to sea water and sulfates (Sulfate resistant **webertec 311 MC-HCS** is available on request)
- Excellent resistant to vibration and shock loads

CHARACTERISTICS	
Appearance	Grey powder + aggregates
Free from chlorides and metallic particles	
Grain size	0 to 10mm
Powder density	1.8
Setting time (ASTM C 403) Initial Final	 Around 5 Hours Around 6h30 min
Compressive strength at 22°C±1 (BS 1881- Part 116)	55N/mm^2 at 7 days 70N/mm^2 at 28 days
Flexural strength at 22°C±1 (BS 1881 P118)	>10N/mm^2 at 28 days
Fresh density ASTM C 185-02 section 5.5	2.48±0.05

Results obtained at 22°C by mixing 39kg kit with 3.9 liters of clean water.

**Properties listed above are only based on controlled laboratory samples and tests: Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.*

APPLICABLE STANDARDS

BS 1881: Part 116:1983
BS 1881 - part 116
BS 1881: Part 122:1983
ASTM C 403/403 M-05
ASTM C 1202-09
ASTM C 138: 01

INSTRUCTIONS FOR USE

SUBSTRATE PREPARATION

webertec 311 MC-HCS may be applied on sound concrete, masonry, rock or similar materials. Remove damaged concrete and laitance by chipping with a pick or cold-chiselling to get a rough surface. The surface must also be free from any trace of grease or oil.
Saturate the surface with water by copiously spraying just before application, and if possible, 6 hours before application as well. At the time of application, the area should be free from water but still damp.

PRODUCT PREPARATION

The micro concrete is obtained by mixing the 38 kg kit of **webertec 311 MC-HCS** with 2.75 to 3.1 liters of clean water. The amount of water used depending on the workability required. Add the (powder + aggregates) to the water and mix for 3 to 5 minutes.
Mixing should be carried out in a suitably sized heavy duty drum mixer, and applied promptly after.
Do not mix with other hydraulic binders.
The use of additives is prohibited.

STRUCTURAL STRENTHENING

webertec 311 MC-HCS can be used when, additional "bonded" reinforced or non-reinforced micro-concrete to an existing structural member in the form of an overlay or a jacket, is required. In structural strengthening of columns, beams, slabs and walls, their respective sections can be enlarged to increase its load bearing capacity and stiffness. A typical enlargement is approximately 5 to 7.5cm for slabs and 7.5 to 13cm for beams and column. Existent surface needs to be roughened and cleaned. Ensure damping the surface with water before the application. Higher thicknesses could be achieved provided the existing structure to be strengthened is reinforced with anchoring dowels using pure epoxy anchoring resin "**weberanc 405 BFX**".
In such case, top steel reinforcement is then recommended as per the appropriate structural design.
Ideal application temperature is between +5°C and +35°C.
If the application temperature is higher than 35°C, make sure to use cold water to keep the temperature of the freshly mixed micro concrete below 30°C.

CURING

After application, cure the exposed surface by spraying cool water for 3 days , or by using a curing compound such as **weberad cure WH** or **weberad cure Y 20** or etc.

CONSUMPTION

17L for 39kg kit.

STORAGE

12 months after manufacturing date in original and non-open packaging, under cover, in dry condition, away from humidity, protected from extreme temperatures and direct sunlight.

SAFETY PRECAUTIONS

The product contains cement powders which, when mixed with water, release alkalis that could be harmful to the skin. It is preferable that the application be done in a ventilated area, and to wear protective gear for hands, eyes and respiratory system and to avoid breathing of the dust. Splashes on the skin should be washed away by cleaning with soap and water. In case of contact with eyes, wash thoroughly with clean water. If swallowed, do not induce vomiting, in both cases seek medical attention. The product is non-flammable.

DISCLAIMER

While the company guarantees its products against defective materials, the use and application of these products are made without guarantee since the conditions of their application are beyond its control. It is recommended to verify with the company that the product is suitable for the intended use, and that this Data Sheet version is the latest one. The company may modify it without prior notice. Technical characteristics are listed for guidance only. For more information, please contact the company's office in your location.

NOTE

SAINT-GOBAIN