

## Non shrink very high strength grout

### PRODUCT

**webertec 301 HCS** is a blend of portland cement, special admixtures and proprietary aggregates designed to provide high flexural and compressive strength performance from plastic to fluid consistencies. **webertec 301 HCS** is non-metallic, non-shrink, non-gas forming and contains no chlorides or aluminum powders. It is specially used when repair of high strength concrete is required.

### SCOPE OF USE

- Assembly of pre-cast parts made of reinforced or pre-stressed concrete
- Bridge bearing applications
- Concrete jacketing for slabs, columns, beams and footings
- Reblocking / restumping / void filling applications
- Closing or filling around pipes in water tanks / swimming pools
- Pumpability properties
- Anchoring of steel bars
- Jointing
- Fixing industrial equipment and heavy machinery, mounting plates
- Vertical shoring
- Void filling operations
- Excellent shock & vibration resistance

### ADVANTAGES

- Non-shrinking
- High strength
- Easy to apply
- Resistant to sea water and sulfates
- Liquid or plastic consistency



### PACKAGING

Leb	Syria	Jordan	UAE	Qatar	Kuwait	KSA	Oman
-	-	-	-	-	-	25kg	-
-	-	-	-	-	-	50kg	-

### CHARACTERISTICS

Appearance	Grey powder
Grain size	0 to 4.75 mm
Free from chlorides and metallic particles	
Fresh density (BS 1881:83)	2340 kg/m³
Lengthchange	below 0.05% @ 28 days (ASTM C157-03)
Pull off stress	> 1.5 N/mm² @ 28 days (BS 1881 Part 207)

### \*COMPRESSIVE STRENGTH

AGE	1 day	7 days	28 days
COMPRESSIVE STRENGTH (N/mm²) – BS EN 12190 at 22°C ± 1	32	57	72
STANDARD	BS-EN 196-17	BS-EN 196-1	BS EN 196-1*

### \*FLEXURAL STRENGTH & TENSILE STRENGTH at 28 days

AGE	28 days
FLEXURAL STRENGTH (N/mm²) – BS EN 196 - 1	above 7
TENSILE STRENGTH (N/mm²) – BS 6319:PART 7: 198528	3.8

\*Results obtained at fluid consistency: 12.5% water or 6.25 lit. per 50 kg bag.

The mechanical characteristics will be higher if the **webertec 301 HCS** is mixed at plastic consistency: 11% water or 5.5 lit. per 50 kg bag. In this case, the compressive strength can exceed 80 MPa at 28 days.

## APPLICABLE STANDARDS

BS EN 196 Part 1  
BS 1881 Part 207  
ASTM C 157-03  
BS 6319 – Part 7- 1985  
BS 1881: 83  
ASTM C 1107

## INSTRUCTIONS FOR USE

### PRODUCT PREPARATION

Grout or mortar is obtained by mixing **webertec 301 HCS** with clean water. The amount of water used depends on the workability required. Add the powder to the water and mix for 3 minutes. To ensure a homogeneous and uniform mix, an electric mixer must be used.

### Mixing

	<b>webertec 301 HCS</b>	<b>WATER (l)</b>	<b>VOLUME IN PLACE</b>
<b>Mortar</b>	50 kg	5.5 lit.	26 lit
<b>Grout</b>	50 kg	6.255 to 6.75 lit.	28 lit.

(l): Half quantity of water is required for 25 Kg package

### PRODUCT APPLICATION

#### For grouting /jacketing/repair

**webertec 301 HCS** can be used for thickness up to 10 cm. Existent surface needs to be roughened and cleaned. Ensure damping the surface with water before the application. Thickness above 10 cm can be practiced up to 30 cm in case of epoxy anchoring dowels (rebars) installation in the existent structure by (pouring) the Pure epoxy (**weberanc 405 BFX**) into drilled holes in the existent structure, then steel mesh to be connected to Dowels (rebars). Ideal Application temperature is between +5°C and 35°C

#### For Shoring/Soil Nailing Applications

**webertec 301 HCS** can be used for grouting the inclined holes in shoring applications. Hole diameter must not exceed 20 cm, depth of hole will be determined by structure engineer. **webertec 301 HCS** is high fluid and non-shrink properties ensure excellent anchoring/friction with soil/rocks. If the application temperature is higher than 35 °C, make sure to use cool water to keep the mixed grout temperature below 30°C.

## CURING

Protect the work against rapid drying from wind, sun and excessive heat by using a curing compound like **weberad cure WH** or **weberad cure Y 40** or by covering with properly secured plastic sheeting.

## 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.

## PRECAUTIONS

Substrate must be sound and resistant. It should be saturated with water a few hours prior to installation. Remove all water used in wetting support prior to installation of **webertec 301 HCS**. Do not mix with other hydraulic binders.

## 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.

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