

Very high strength shrinkage compensated grout

PRODUCT

webertec 304 VHS 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 304 VHS is non-metallic, non-shrink, non-gas forming and contains no chlorides or aluminum powders. It is a higher performing, multi use, general purpose, precision, construction grout.

SCOPE OF USE

- Assembly of pre-cast parts made of reinforced Or pre-stressed concrete
- Grouting of anchors and dowels
- Jointing
- Keying bridges
- Fixing industrial equipment and heavy machinery mounting plates
- Vertical shoring
- Void filling operations

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 |
|-------|-------|--------|-------|-------|--------|-----|-------|
| 25 kg | 25 kg | 25 kg | 25 kg | 25 kg | - | - | 25 kg |
| 50 kg | 50 kg | 50 kg | 50 kg | 50 kg | - | - | 50 kg |

CHARACTERISTICS

| | |
|--|--|
| Appearance | Grey powder |
| Grain size | 0 to 3 mm |
| Free from chlorides and metallic particles | |
| Fresh density (BS 1881:83) | 2340 kg/m ³ |
| Lengthchange | 0.062 % @ 28 days (ASTM C157-03) |
| Pull off stress | > 1.5 N/mm ² @ 28 days (BS 1881 Part 207) |

*COMPRESSIVE STRENGTH (N/mm²) – BS- EN 12190

| 1 day | 7 days | 28 days |
|-------|--------|---------|
| > 30 | > 60 | > 80 |

FLEXURAL STRENGTH & TENSILE STRENGTH at 28 Days for fluid consistency

| AGE | 28 days |
|--|---------|
| FLEXURAL STRENGTH (N/mm ²) – BS EN 196-1 | > 10 |
| TENSILE STRENGTH (N/mm ²) – BS 6319:PART 7: 1985 | 3 |

* The one day results obtained @ 28 °C. The higher the curing temperature, the higher will be the strength @ 24 hours.

The mechanical characteristics will be higher if the **webertec 304 VHS** is mixed at plastic consistency. In this case, the compressive strength can exceed 90 N/mm² at 28 days.

*Properties listed above are obtained with 2.75 liters of water and 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 EN 196 Part 1 - BS EN 12190
BS 1881 PART 207
ASTM C 157-03
BS 6319 – Part 7 – 1985
BS 1881: 83

INSTRUCTIONS FOR USE

MORTAR PREPARATION

Add the powder to the water and mix for 3 minutes. To ensure a homogeneous and uniform mix, an electric mixer with high rotation speed must be used for fluid and flowable consistencies.

| CONSISTENCY | webertec 304 VHS | WATER (l) | VOLUME IN PLACE |
|-------------|------------------|---------------|-----------------|
| PLASTIC | 25 Kg | 2.25 to 2.43L | approx 12L |
| FLOWABLE | 25 Kg | 2.43 to 2.75L | approx 12L |
| FLUID | 25 Kg | 2.75 to 2.87L | approx 12L |

The mortar is obtained by mixing **webertec 304 VHS** with clean water. The amount of water used depends on the workability required.

At the proper volumes, **webertec 304 VHS** may be used as a micro-concrete by mixing it with clean and washed 3/8 aggregate to a plastic consistency. Site trials must always be conducted to verify the achievable compressive strength. Do not mix with other hydraulic binders. The use of additives is absolutely prohibited. Ideal application temperature is between + 5°C and + 35°C. If the application temperature is higher than +35 °C, make sure to use cool water to keep the mixed grout temperature below +30 °C.

FOR GROUTING & CONCRETE REPAIR

webertec 304 VHS can be used for thicknesses up to 10 cm. Apply the mortar evenly on the concrete surface where required.

Ideal application temperature is between + 5°C and + 35°C. 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 wet with water a few hours prior to installation. Remove all water used in wetting support prior to installation of **webertec 304 VHS**. 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.

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

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