# Centricrete HCS

Single-component, rigid-filling cement slurry for the injection of cracks, voids and cavities in concrete and masonry

BE SURE. BUILD SURE.

## PRODUCT PROPERTIES

- Fine-cement slurry (suspension) of good injectability
- Long working time
- Rapid strength development
- Shrink- and expansion-free curing
- Realkalising effect
- Chloride-free
- Environmental Product Declaration EPD

## AREAS OF APPLICATION

- Rigid filling and reinforcement of cracks, construction joints, voids and cavities in concrete and masonry under dry, moist and water-bearing conditions
- Pre-injection of larger cavities in concrete and masonry prior to a partial or full-surface sealing injection/ waterproofing measures

## APPLICATION ADVICE

**Preparatory measures:** Prior to injection, the structure must be examined according to the state of the art and the rules of technology and an injection concept must be planned. A trial injection is recommended.

**Mixing the components:** A fast-rotating stirring tool (colloidal mixer) should be used for mixing. The best processing properties for crack injections are achieved with a colloidal mixer. Alternatively, a four-arm basket mixer driven by a drill operating at min 800 rpm can be used. Due to the lower mixing energy, the cement particles are suspended to a lesser extent. The flowability is slightly lower, good enough for cavity injections.

To prepare the suspension, 7-8 l of water is added to a clean container and Centricrete HCS is stirred in with a slow stirring motion. The mixing time to be measured then begins with a rapid stirring movement (≥ 800 rpm).

The mixing process starts with 3 min rapid mixing time of the Centricrete HCS in water, followed by 2 min rest time and then another rapid mixing phase of 1 min.

After mixing, check the flow time with the Marsh funnel (4.76 mm). It should reach a value of 80 - 100 sec. The measurable outflow time is influenced by the amount of water and the mixing time.

The standard bag (20 kg binder) allows the production of approx. 28 kg ≈ 14.7 l injection slurry. Always mix complete bagfulls.

**Injection:** Injection is carried out with injection pump MC-I 910 (1-component pump) using the low-pressure method.

MC Hammer Packer LP 18 or MC Surfacepacker LP packers are recommended for injection. Each packer has to be injected twice (main injection + post-injection).

Application work should cease once component/substrate temperatures fall below 5 °C.

Ensure compliance with the information given in the specifications and the Safety Data Sheets.

**Equipment cleaning:** Within the working time, all tools can be cleaned with water. Material that has reacted or set will need to be removes machanically.

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## TECHNICAL VALUES & PRODUCT CHARACTERISTICS

| Characteristic | Unit | Value | Comments |
|---|---|---|---|
| Mixing ratio | mass fractions | 20 : 7 | powder component : liquid component |
| | | 20 : 8 | |
| Density | kg/dm³ | approx. 1.9 | DIN 18555 T1 |
| Flexural strength (water addition 7 l) | N/mm² | | EN 196-1 |
| 24 h | | approx. 4.9 | |
| 7 d | | approx. 4.7 | |
| 28 d | | approx. 7 | |
| Flexural strength (water addition 8 l) | N/mm² | | EN 196-1 |
| 24 h | | approx. 5 | |
| 7 d | | approx. 3.8 | |
| 28 d | | approx. 6.6 | |
| Working time | minutes | approx. 60 | subject to steady stirring and pumping motions |
| Application conditions | °C | > 5 | component and subsoil temperature |
| Compressive strength (water addition 7 l) | N/mm² | | EN 196-1 |
| 24 h | | approx. 25.3 | |
| 7 d | | approx. 54.4 | |
| 28 d | | approx. 64.4 | |
| Compressive strength (water addition 8 l) | N/mm² | | EN 196-1 |
| 24 h | | approx. 35 | |
| 7 d | | approx. 43 | |
| 28 d | | approx. 43 | |
| E-modulus (dynamic) | N/mm² | | EN 12390-3 (after 28 days) |
| | | 24,000 | storage at 95% rel. humidity |
| Three-dimensional change | % | 0.1 | DIN 4227 T5 |
| Slump flow time (flowability) | seconds | approx. 80 - 100 | EN 14117 (4.76 mm) |
| | All technical values are laboratory results determined at 21°C ±2°C and 50% relative humidity. | | |

| | |
|---|---|
| Colour | grey |
| Equipment cleaning agent | water |
| Delivery form | 20 kg paper sack |
| Storage | Can be stored in original sealed packages at temperatures between 5°C and 30°C in dry conditions for at least 12 months. |
| Packaging disposal | Make sure single-use containers are completely empty. |

**Safety instructions**

Please note the safety information and advice given on the packaging labels and safety data sheets. GISCODE : ZP1



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