

# Centricrete HCS

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



## 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 ( $\geq 800$  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  $\approx$  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 removed mechanically.

## TECHNICAL VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments
Mixing ratio	mass fractions	20 : 7 20 : 8	powder component : water
Density	kg/dm <sup>3</sup>	approx. 1.9	DIN 18555 T1
Flexural strength (water addition 7 l)	N/mm <sup>2</sup>		EN 196-1
24 h		approx. 4.9	
7 d		approx. 4.7	
28 d		approx. 7	
Flexural strength (water addition 8 l)	N/mm <sup>2</sup>		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/mm <sup>2</sup>		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/mm <sup>2</sup>		EN 196-1
24 h		approx. 35	
7 d		approx. 43	
28 d		approx. 43	
E-modulus (dynamic)	N/mm <sup>2</sup>		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 Shade	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. Ensure compliance with our information leaflet "Return of Emptied Transportation and Sale Packaging". We will be glad to send you this on request.

### Safety instructions

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

**Note:** The information contained in this data sheet is based on our experience and is correct to the best of our knowledge. It is, however, not binding. It will need to be adapted to the requirements of the individual structure, to the specific application and to non-standard local conditions. Application-specific conditions must be checked in advance by the planning engineer/specifier and, where different from the standard conditions indicated, will require individual approval. Technical advice provided by MC's specialist consultants does not replace the need for a planning review by the client or its agents in respect of the history of the building or structure. Subject to this prerequisite, we are liable for the correctness of this information within the framework of our terms and conditions of sale and delivery. Recommendations of our employees deviating from the information given in our data sheets are only binding for us if they are confirmed in writing. In all cases, the generally accepted rules and practices reflecting the current state of the art must be observed. The information given in this technical data sheet is valid for the product supplied by the country company listed in the footer. It should be noted that data in other countries may differ. The product data sheets valid for the relevant foreign country must be observed. The latest technical data sheet shall apply to the exclusion of previous, duly superseded versions; the date of issue in the footer must be observed. The latest version is available from us on request or may be downloaded from our website. [2100005680]