

CONSTRUCTION

CarboCryl Hw

HYDROPHILIC THREE-COMPONENT METHACRYLATE GEL

CE identification according DIN EN 1504-5

Classification: U(S2) W(1) (1/2/3) (5/30)

DESCRIPTION

CarboCryl Hw is a sealing hydrophilic, cross-linked three-component methacrylate gel.

CarboCryl Hw, A1, is an aqueous methacrylate solution. CarboCryl Hw, A2, is an accelerator based on amines. The hardener CarboCryl Hw, B2, a peroxide salt, is a solid, which is soluble in water.

After mixing, the hardener triggers the polymerisation of the methacrylate yielding an elastic gel.

APPLICATION AND USE

- Brick work injection, creating a barrier against rising moisture
- Curtain waterproofing injection
- Sealing injection of construction joints
- Crack sealing injection in concrete (possible combination with CarboCryl Plus W)
- Injection of construction joints using injection hoses (re-injectable, possible combination with CarboCryl Plus W)
- Stabilization and sealing of fine-grained soils

Applicable at temperatures from 5 °C to 40 °C (building component temperature).

ADVANTAGES

- Excellent penetration ability due to water like viscosity
- Adjustable curing time
- High elasticity
- Resistance vs. most organic, or inorganic chemical liquids

TECHNICAL DATA

The data below are laboratory data. They may vary in practice by thermal exchange between resin and concrete, moisture, and other factors.

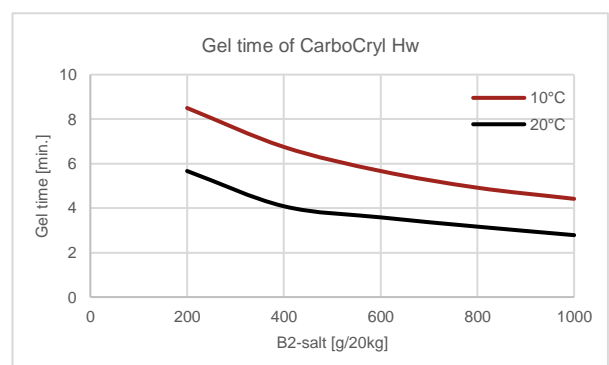
MATERIAL DATA

Parameter	Unit	Comp. A1	Comp. A2	Comp. B2	Standard
Density at 25 °C	kg/m ³	1050 ± 50	933 ± 5	1680	DIN 51757
Colour	-	colourless	light yellow	white	-
Mixing viscosity	mPa*s	< 5 mPa*s			

REACTION DATA

Specific Mixing ratio A : B	1 / 1 p. b. vol.
Blend A1 : A2 // water : B2 (p. b. w.)	20 + 1 // 20 + p. b. w. B2

GEL TIME*



B2-Salt [g/20kg]	Gel time at 20 °C [min : s]	Gel time at 10 °C [min : s]
800	03:10	04:55
600	03:35	05:40
400	04:05	06:45
200	05:40	08:30

*At the gel time, the entire mass has gelled and can no longer be pumped.
Real variation of values about 10 %.

APPLICATION METHOD

1. Preparation of the solutions

Prior to injection, the desired amount of the accelerator (component A2) will be mixed with component A1 (resin) for approx. 3 minutes. In a second vessel, the same volume of water (component B1) will be mixed for approx. 3 minutes with the hardener (component B2). Thus, the standard formulation comprises 20 kg comp. A1, as delivered, 1 kg comp. A2 and X g comp. B2 dissolved in 20 l water. In special cases, e. g. at low ambient temperature, the share of B2-component can be increased up to 1000 g; a higher concentration is not allowed (deterioration of the mechanical properties). No metal stirrers should be used for mixing and homo-genisation of the product, but only plastic or wood paddles. Mixing time in both cases is approx. 3 minutes.

The with A2 component activated A1 component can be used within 8 hours (depending on temperature). Afterwards the use of the activated component is no longer recommended, as the properties of the cured gel deteriorate.

The ready-to-use B component is also stable for max. 8 hours (depending on temperature).

2. Processing of the solutions

For injection we recommend to use a self-priming two-component injection pump in stainless steel, with a specific mixing ratio 1 : 1. The solutions are conveyed separately via high-pressure hoses to a compression head and injected into soil or masonry via a feed pipe and a packer, which has been fixed before in a drill hole. After injection of the acrylate, flush out the compression head with water.

The grout is capable of penetrating minute cracks as well as silty soil. The radius of injection is defined by the gel time, in the first place.

In case that on a site both CarboCryl Hw and polyurethane have to be injected, first the higher

viscous polyurethane shall be used, than the lower viscous CarboCryl Hw gel.

Within the processing time all equipment can be cleaned with water. Partially and completely cured material can only be removed mechanically.

3. Final Product

CarboCryl Hw can take up and give off water reversibly, depending on the environment.

SAFETY INSTRUCTIONS AND LIMITATIONS

Observe the usual precautionary measures for handling chemicals, see Material Safety Data Sheets CarboCryl Hw.

PACKAGING AND TRANSPORTATION

All forms of packing are approved to the danger goods regulation road, railway, domestic shipping.

The components are delivered in following units:

Component A1 (methacrylate) 25 l (20 kg)

Component A2 (accelerator) 1 l (1 kg)

Component B2 (hardener) 1 l (400 g)

STORAGE AND SHELF LIFE

At least 12 months from date of production when stored in a dry place between 10 °C and 30 °C. Do not expose to sunlight or prolonged contact to iron.

The local legislation on storage has to be taken into consideration.

DISPOSAL

Follow local regulations.

APPROVALS AND CERTIFICATES

Test according to EN 1504-5: U(S2) W(1) (1/2/3) (5/30)	Details
Watertightness	S2
Viscosity	≤ 60 mPa*s
Corrosion behaviour	Deemed to have no corrosive effect
Changing of volume and mass by air drying and water bearing	Air drying and water storage: approx. -28 % Water bearing: approx. +28 %
Sensitivity compared to water	Passed
Sensitivity compared to Wet-dry-cycles	Passed
Compatibility with concrete	Passed
Release of hazardous materials	NPD

*NPD - No Performance Determined

CUSTOMER SERVICE

For additional support options available at your area, contact our local offices:

www.minovaglobal.com/emea-cis

DISCLAIMER

© 2025 Minova. All rights reserved. All information contained in this document is provided for informational purposes only and is subject to change without notice. Since Minova cannot anticipate or control the conditions under which this information and its products may be used, each user should review the information in the specific context of the intended application. To the maximum extent permitted by law, Minova specifically disclaims all warranties expressed or implied in law, including accuracy, non infringement, and implied warranties of merchantability or fitness for a particular purpose. Minova specifically disclaims, and will not be responsible for, any liability or damages resulting from the use or reliance upon the information in this document. The word Minova and the associated image are registered trademarks.

MCT-340101/CarboCryl Hw_E2, November 2025

ADDITIONAL DOCUMENTATION

- MSDS of CarboCryl Hw component A1
- MSDS of CarboCryl Hw component A2
- MSDS of CarboCryl Hw component B2