

CONSTRUCTION

CarboCryl Ww

HYDROPHILIC THREE-COMPONENT ACRYLATE GEL

CE - marking CarboCryl Ww according to DIN EN 1504-5

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

DESCRIPTION

CarboCryl Ww is a fast sealing hydrophilic three-component acrylate gel.

CarboCryl Ww, A1, is an aqueous acrylate solution. CarboCryl Ww, A2, is an accelerator based on amines. The hardener CarboCryl Ww, 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

- Repair and sealing of dilatation joints (possible combination with CarboCryl Plus W)
- Curtain waterproofing injection
- Sealing injection of construction joints

Applicable at temperatures from 5 °C to 40 °C (40 °F to 104 °F).

ADVANTAGES

- Excellent penetration ability due to water like viscosity
- High elasticity
- Adjustable curing time
- 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.

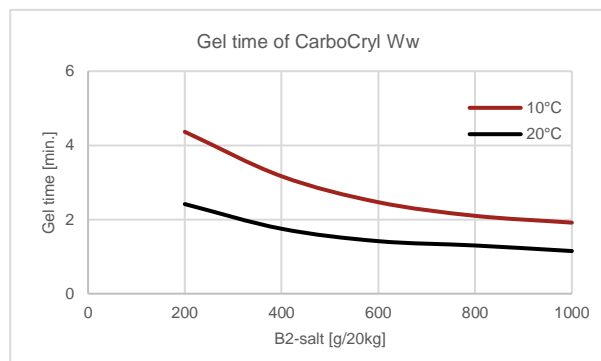
MATERIAL DATA

Parameter	Unit	Comp. A1	Comp. A2	Comp. B2	Standard
Density at 25 °C	kg/m ³	1200 ± 100	933 ± 5	1680	DIN 51757
Colour	-	colourless	light yellow	white	-
Mixing viscosity	mPa*s	< 10 mPa*s			

REACTION DATA

Parameter	Details
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 (cf. plot)

GEL TIME



B2-Salt [g/20 kg]	Pot life at 20 °C [min : s]	Pot life at 10 °C [min : s]
1000	01:09	01:55
600	01:25	02:28
200	02:25	04:22

*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, 1 kg of the accelerator (component A2) is mixed with 20 kg of component A1 (resin) for 3 minutes. In a second vessel, the same volume of water (component B1, 20 l) is mixed with the hardener (component B2) also for 3 minutes. By changing the hardener content (B2) the gelling time can be adjusted. Thus, a formulation comprises 20 kg comp. A1, as delivered, 1 kg comp. A2 and the desired amount of comp. B2 dissolved in 20 l water. For special application as e.g. temporary sealing, the product can be used with a maximum B2-portion of 1000 g rel. to 20 kg A1-component. For safety reasons, a dosage of more than 1000 g B2 salt relative to 20 kg of A1-component must not be exceeded.

The freshly prepared solutions are serviceable approximately 8 hours. No metal stirrers should be used for mixing and homogenisation of the product, but only plastic or wood paddles.

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 radius of injection is defined by the gel time, in the first place. In case that on a site both CarboCryl Ww and polyurethane have to be injected, first the higher viscous polyurethane shall be used, than the lower viscous CarboCryl Ww gel.

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

3. Processing temperature

Processing temperature	5 – 40 °C	part temperature
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The temperature range is consistent with our recommendation. In principle, the product reacts even at very low temperatures (according to experience up to about -15 °C) or significantly higher temperatures than 40 °C. However, here other problems can be observed which are not caused by the product properties: the failure of the pump technology in frosty conditions by freezing the air lines or the presence of ice in the structural elements which has to be sealed. Very high temperatures lead to very short reaction times. So complete filling of the injection area is prevented. There is also the risk that the activated A-component cures at very high temperatures without the addition of the B component, which can lead to blockage of the injection pump.

4. Final Product

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

SAFETY INSTRUCTIONS AND LIMITATIONS

Observe the general safety regulations when handling chemicals, see MSDS CarboCryl Ww.

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 (20kg)
- Component A2 (accelerator) 1 l (1 kg)
- Component B2 (hardener) 1 l (400 g)

Other packaging units are available on request.

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STORAGE AND SHELF LIFE

At least 12 months from date of delivery or twelve 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 observed.

ADDITIONAL DOCUMENTATION

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

DISPOSAL

Follow local regulations.

CUSTOMER SERVICE

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

www.minovaglobal.com/emea-cis

APPROVALS AND CERTIFICATES

Test according to EN 1504-5: U(S2) W(1) (1/2/3) (5/30)	Details
Water tightness	S2
Viscosity	≤ 60 mPa*s
Corrosion behaviour	It is assumed that no corrosive effects are present
Volume and mass change by air drying and water storage	Air drying and water storage: approx. +19 % Water storage: approx. +28 %
Sensitivity to water	passed
Sensitivity to wet-dry cycles	passed
Compatibility with concrete	passed
Release of dangerous substances	NPD

*NPD - No Performance Determined

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