Carbocryl Hv

Hydrophillic, cross-linked methacrylate gel

Uses

Typical uses include the following.

- Protection against leaks in concrete joints
- Pressure sealing through injection hoses
- Stabilisation of sandy or silty soil
- Sealing of cracks in concrete foundation piles, tubbings etc.
- Large area sealing of soil in contact with structural elements, viz. tunnels, trenches etc.

Advantages

- Excellent penetration capacity due to waterlike viscosity
- Adjustable curing speed
- High sealing effect
- High elasticity
- Swells reversible with the entry of moisture, preventing further ingress of water into the structure
- Chemical resistance v/s most organic, or inorganic liquids
- No isocyanates - suitable for potable water contact
- Reinjectable when used with Fosroc predimax.

Specification

The injection resin should be a dual component, water swellable, methacrylate based resin, which upon mixing yields an elastic gel, capable of absorbing and desorbing water.

Description

Carbocryl Hv is a methacrylate based three component injection system. It comprises of resin (Hv A1), accelerator (Hv A2) and a catalyst (Hv B2) which is diluted with water. Mixing the components leads to a in-situ reaction forming an elastic gel, which is capable of absorbing and desorbing water.

Properties

The following typical results were obtained at

Mixing ration A:B	: 1:1 p.b.vol
Blend A1 and A2	: 20kg A1 and 160g A2
Blend water B2	: 20kg water and 40g B2
Mixing viscosity	: < 5mPa*s

Physical Data

Property	HvA1	HvA2	HvB2
Density (Kg/m^3)	1055 ±10	935 ±10	-
Colour	colourless	transparent	white
pH value	6±1	10.2±0.5	
Viscosity(25^o C) MPa*s	5±0.3	1.5±0.5	solid

* time to reach maximum reaction temperature

Note : The above data are derived from laboratory controlled tests under Middle East conditions 20 to 45^{o}C. The values may vary in practice by thermal exchange between resin and concrete, moisture and other factors

Instructions for use

Equipment

For injection, it is recommended to use an injection pump (eg. WIWA 2K injection unit), with a specific mixing ratio of 1:1.

Mixing

The recommended standard formulation is prepared as follows :

Prior to injection, the accelerator (component A2) should be mixed with component A1(resin). In a second vessel, water (component B1) will be mixed with the hardener (component B2). Thus, the standard formulation comprises 20kg comp. A1, as delivered, 160g comp.A2 and 40g comp. B2 dissolved in 20 litres of water. Use of metal stirrers is not allowed. Use only plastic or wooden paddles.

The ready-to-use A component can be used within 24 hours. Afterwards, the use of the activated component is no longer recommended. The ready-to-use component B is stable for 5 hours.

Application

Fix feeder pipes and packers at the recommended positions, as specified in the contract drawings, using an appropriate drill.

The solutions should be conveyed separately via high pressure hoses to the compression head of the pump, from where it will be injected into the concrete, masonry, soil or rocks via feeder pipes and packers.

After injection of the acrylate, flush out the compression head with water.

Carbocryl Hv

In the case that two different resins are being injected at the same site, ensure that the higher viscous resin shall be injected first followed by the lower viscous resin.

Estimating

Supply

Carbocryl Hv Comp A1 (methacrylate)	:20kg
Carbocryl Hv Comp A2 (accelerator)	:160g
Carbocryl Hv Comp B2 (hardener)	: 40g

Limitations

For temperatures below 20°C the mix preportions of A1, A2 and B2 must be altered.

For 5°C to 20°C use

A1 (20kg) mixed into A2 (1kg) = A component.

B2 (40g) dissolved in 20 litres of water = B component.

Mix A and B 1:1 by volume

Storage

Shelf life

All products have a shelf life of 6 months from the date of manufacture, if kept in a dry store in the original, unopened packs.

Storage conditions

Store in dry conditions in the original packs. If stored at high temperatures and/or high humidity conditions the shelf life may be reduced.

Precautions

Health and Safety

In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately - do not induce vomiting.

Fire

Carbocryl Hv supports combustion. Keep away from combustible materials. No smoking. In the event of fire, extinguish with CO_2 or foam. Do not use a water jet.

For further information, refer to the Product Material Safety Data Sheet.

BERGER
Trusted Worldwide

Berger Fosroc Limited
Corporate Address:
'Berger House', House # 08, Road # 02, Sector # 03, Uttara Model Town, Dhaka 1230, Bangladesh.
telephone(Hunting) : +880248953665, **fax :** +880248951350,
e-mail : enquiry.bangladesh@bergerfosroc.com, **website** : www.bergerfosroc.com

FOSROC