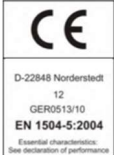


NordicACR Eco

Three Component (3C) Expanding Acrylate resin



CE-marking in accordance with EN 1504-5 for manufacturers products.

Product Description:

A three-component, water-expanding hydrogel on acrylate or methacrylate basis that hardens to an elastic product. It is characterised by the low blending viscosity that is almost equivalent to the viscosity of water, creating a series of renovation procedures possible that cannot be accomplished with other injection materials of a higher viscosity.

- Grouting of curtains,
- Repairs in brickwork and cement-based structures
- Forming of horizontal barriers
- Ground stabilisation

Differing pot lives can be defined (see table pot life below), adapted to the application and environmental temperature, by varying the B-amount of salt (100 g up to 1000 g based on 20 kg A1 component).

Technical properties:

The data below are laboratory data only. They may vary in practice due to thermal exchange between resin and strata, surface properties of the stone, humidity, pressure and other factors.

Reaction and Mechanical Data:

Temperature 20 °C	Data	Test Standard
String Gel Time /Pot Life	Approx. 15s to 60min	DIN EN 14022
Final Curing Time (min:s)	Approx.2 to 70 min	
Processing Temperature	5 -40 °C	Substrate Temperature
Viscosity of mixture at 20 °C	Approx. 4.2 mPas	DIN EN ISO 3219

Material Data:

	Component A		Standard
	A1	A2	
Spec. Density at 20 °C	Approx. 1.19 g/cm ³	Approx. 1.12 g/cm ³	DIN EN ISO 3675
Bulk Density at 20 °C	Approx. 40.0 mPas	Approx. 280 mPas	DIN EN ISO 2555
	Component B		
Spec. Density at 20 °C	Approx. 2.59 g/cm ³		NA
Bulk Density at 20 °C	Approx. 1.15 g/cm ³		NA
	Retarder		
Spec. Density at 20 °C	Approx. 1.00 g/cm ³		NA
Bulk Density at 20 °C	Approx. 1.00 mPas		NA

Properties After Curing:

Consistency	Soft Elastic
Colour	Blue
E-modulus: Approx.0.26 mPa	DIN EN ISO 527
Tensile Strength: Approx. 0.04 mPa	DIN EN ISO 527
Elongation at break: Approx. 510%	DIN EN ISO 527
Water Absorption: Approx 100%	DIN EN ISO 62

* The declared range of temperature complies with our recommendations. Generally, the product reacts even at very low temperatures (from experience down to approx. -15°C) or distinct higher values than +40°C. Admittedly, problems might occur, which are not directly related to the properties of the product. At sharp frost the air line of the pump might freeze or even present ice inside the structural element to be sealed can cause difficulties. At temperatures above-average too short reaction times can arise, which prevent an entire and successful filling of the injection area. Beside that it might happen that the activated A-component at very high temperatures starts curing even without addition of the B-component, which results in a blockage of the injection pump.

** The indicated times are reached through different quantities of B component and Retarder.

Composition and properties:

System component AI, AII and BII is classified as hazardous according to Regulation (EC) 1272/2008 (CLP).

Application:

The AII (A2) -container is emptied completely into the AI container and mixed for approx. 3 minutes. The B-component is filled into a container equivalent to the AI component and filled with 18 litres tap water. Then it is mixed again for 3 minutes.

The A and B components prepared in this way should be processed at mixing ratio 1:1 (parts by volume) by means of a 2-component injection pump.

Appropriate injection pumps: BOOSTER 10 A or MINIBOOSTER 5U

Different pot-lives can be defined depending on the amount of B salt and the temperature. The indicated quantities of salt (B component) must not fall short or be exceeded

Pot life depending on B-amount and temperature:

25 °C	0:47	0:27	0:17	0:12	0:10
20 °C	0:56	0:33	0:21	0:17	0:15
15 °C	1:10	0:48	0:27	0:20	0:17
10 °C	1:56	1:07	0:37	0:30	0:23
5 °C	3:11	1:12	0:40	0:33	0:26
	100 g	200 g	500 g	800 g	1000 g

(Amounts based on 20 kg AI- and 1 kg AII-component)

Longer reaction times can be achieved by use of the special retarder. This retarding additive (1kg PE bottle) is being emptied fully into the prepared water bucket together with the appropriate quantity of salt component. The quantity of water must be equal to the quantity of AI and AII (A2) component (20kg AI + 1kg AII). The mixture of water, salt and retarder is being mixed for at least 3 minutes.

Pot life depending on B-amount and temperature using Retarder added:

25 °C	28:48	10:12	6:44	4:48	3:30
20 °C	30:30	15:10	10:20	7:00	5:40
15 °C	61:40	24:48	13:24	9:23	7:24
10 °C	102:42	40:20	21:36	12:44	11:28
5 °C	157:44	60:16	34:16	24:04	19:28
	100 g	200 g	500 g	800 g	1000 g

(Amounts based on 20 kg AI- and 1 kg AII-component)

A reaction time of 2 to 4 minutes should be defined in the case of grout curtains and ground stabilisation, to achieve optimal saturation of the ground. It has been proved in extensive tests that faster reaction times have a negative effect as no uniform gel curtain or rather uniform distribution of the injection material can be achieved.

Recommendation:

We recommend that before processing, the product should be stored for at least 12 h at a minimum temperature of 15 °C to achieve best performance. Read safety data sheet before using products.

Packaging:

Component AI 20 kg-plastic canister
Component All 1 kg-plastic bottle
Component B 1 kg-plastic can
Retarder 1 kg-plastic bottle
Larger packaging on request

Storage, shelf life:

The shelf life of the product is six months from date of delivery. The product should be stored in a dry place at temperatures between 15 °C and 25 °C. Improper storage will shorten shelf life.

Disposal:

Dispose of uncured product components in accordance with the local regulations. Small quantities of cured product residues may be disposed of as normal domestic waste. Empty cans should be cleared of liquid by punching a hole through the edge of the cover and turning them upside down, until liquid does not flow out any longer.

Testing and Certificates:

Examination of the leaching behaviour with reversed flow direction of the acrylate gel NordicACR Eco (Ecocryl) (column trial referring to DIBt Guideline "Assessments of the effects of construction products on soil and ground water"); MFPA Leipzig 2011.

Determination of performance characteristics of the acrylate gel NordicACR Eco (Ecocryl) according to DIN EN 1504-5; MFPA Leipzig 2012.

Determination of the identification properties and performance characteristics of the ECOCRYL crack injection product according to EN 1504-5:2013; MFPA Leipzig 2017.

Disclaimer:

The data in this sheet conform to our best knowledge and experience at the date of printing, which is indicated below. The state of knowledge and experience are evolving constantly. Please pay attention therefore, that you always refer to the current version of this data sheet. The description of the product application in this sheet cannot take the special conditions and circumstances into account emerging from the individual case. Application, use and processing of our product occur outside of our control capabilities. In particular, the processing results are exclusively subject to your own responsibility. No data in this sheet constitute a guarantee in a legal sense. Every time the user is obliged to check the product and auxiliary agents in terms of usefulness for his intentional use.

Revision date: 10.01.2020