

# Technical Datasheet

## CreNovate FCRM-G R4 AR

Self-levelling grout for concrete repair and load-bearing connections

### Characteristics



#### Area of use

- Certified according to EN 1504-3 - Class R4
- Certified according to EN 1504-6
- Indoor and outdoor
- Load-bearing connection between concrete substrate and machines as well as other metal components
- Load-carrying connection of pre-fabricated concrete structures in sleeve foundations
- Void-free bonding between mounting parts and concrete

#### Properties

- Self-levelling, chloride-free and water-tight
- Compression strength of 90 N/mm<sup>2</sup>
- Seamless bond without cracks or voids, resulting in smoother machine operation
- Resistant to frost and de-icing salt

### Technical Data

Adhesive tensile strength	≥ 2 N/mm <sup>2</sup>	EN 1542
Compressive strength		DIN EN 196-1
After 24 h	≥ 55 N/mm <sup>2</sup>	(Prism 4 x 4 x 16 cm)
After 7 d	≥ 80 N/mm <sup>2</sup>	
After 28 d	≥ 90 N/mm <sup>2</sup>	
After 90 d	≥ 95 N/mm <sup>2</sup>	
E-Modulus	≥ 20.000 N/mm <sup>2</sup>	EN 13412
Flexural strength after 28 d	≥ 10 N/mm <sup>2</sup>	EN 196-1
Capillary water absorption	≤ 0.5 kg/(m <sup>2</sup> h <sup>0.5</sup> )	EN 13057
Behaviour in fire	Class A1	DIN 13501-1
Repair principles	3.1, 3.2, 4.2, 4.4, 7.1, 7.2	EN 1504-9
Classification to		DAfStb VeBMR
• Flowability class	f3 (≥ 750 mm)	
• Shrinkage class	SKVM I	
• Early strength class	A (≥ 40 N/mm <sup>2</sup> after 24 h)	
• Compressive strength class	C 60/75	
Applicable environment conditions	XC1, XC2, XC3, XC4 XD1, XD2, XD3 XS1, XS2, XS3 XF1, XF2, XF3, XF4 XA1, XA2	EN 206 / DIN 1045-2


The provided values represent typical characteristics of the product and should not be interpreted as binding product specifications.

### Characteristics

Base Cement concrete (CC)

Consistency	Powder
Number of Components	1
Grain size	≤ 1 mm
Wet mortar density	2.3 kg/l
Colour	Grey
Shelf life	Min. 12 months when stored dry, permanent stored < 30 °C and unopened
Packaging	25 kg paper bag with PE inlay
GISCODE	ZP1
Art.-No.	574223

### Processing

Processing temperature (Material, air and substrate)	5 °C to 30 °C
Mixing ratio mortar	3.6 l water per 25 kg bag
Mixing ratio 1 kg	0.145 l water per kg
Mixing time	3 min
Working time*	90 min
Subsequent work*	
• Removal of formwork after	Approx. 12 h
• Operation of machine after	Approx. 24 h
Single layer min.	5 mm
Single layer max.	100 mm
Wet mortar consumption per 1 mm thickness	2.3 kg/m <sup>2</sup>
Dry mortar consumption per 1 mm thickness	2 kg/m <sup>2</sup>
Coverage of 25 kg bag	Approx. 12 l
Flow in flow channel*	
Immediately	≥ 800 mm
After 5 min	≥ 800 mm
After 30 min	≥ 800 mm
After 60 min	≥ 780 mm
After 90 min	≥ 780 mm
Expansion after 24 h*	0.1 vol %
Temperature resistance after curing	-30 °C to +80 °C
Application technique	Grouting 
Approved machines	See machine list

\*At 23 °C - 50 % relative humidity. Higher temperatures decrease the given times, while lower temperatures increase them.

### Processing guidelines

- Preparation concrete surface
- Must not contain loose parts

	<ul style="list-style-type: none"> <li>• Dust free and clean</li> <li>• Check for adequate adhesive tensile strength</li> <li>• Damp surface without puddles (Matt appearance)             <ul style="list-style-type: none"> <li>• Pre-wet surface at latest 2 h before work</li> <li>• Keep surface wet</li> </ul> </li> </ul>
Preparation reinforcement	<ul style="list-style-type: none"> <li>• Any visible corrosion must be removed</li> <li>• Cleaning grade if corrosion protection used: SA 2½</li> <li>• Basic Cleaning grade: SA 2</li> </ul>
Processing indications	<ul style="list-style-type: none"> <li>• Use tap water for mixing with mortar</li> <li>• Add CreNovate FCRM-G R4 AR to bucket with water</li> <li>• Mix as long as described under processing and until free of lumps</li> <li>• Formwork can be removed after approx. 12 hours</li> <li>• CreNovate FCRM-G R4 AR does not replace anchoring with screws and bolts when used as plinths like machine beds</li> <li>• When waiting times are long, stir CreNovate FCRM-G R4 AR briefly before applying</li> <li>• When dealing with long distances, grouting is done section by section</li> <li>• Never add any substances to the mortar except tap water</li> <li>• Never add water after mortar has started to set</li> <li>• Only mechanical mixing of mortar</li> <li>• Dropped mortar must be thrown away</li> </ul>
Subsequent processing	<ul style="list-style-type: none"> <li>• Mortar must be protected against direct sunlight, strong wind, rain and frost for at least 48 h</li> </ul>
Cleaning	<ul style="list-style-type: none"> <li>• After use, clean tools with water immediately</li> <li>• Once cured, the product can only be removed mechanically</li> </ul>
Safety / Disposal	For safety information related to transport, storage, handling, and disposal of the product, refer to the current Safety Data Sheet.

Please note that the data and information provided above are guidelines from laboratory and real-life experience and are not binding. This general information describes our products and their use, but due to varied working conditions, not every case can be covered. We recommend conducting tests or consulting us if in doubt. We provide information to outline our products and services, without guaranteeing specific properties or suitability for a particular purpose. Upon publication of a new version, the current Technical Data Sheet becomes invalid.