

# MC-CarboSolid 1209

Adhesive for CF-sheets for structural reinforcement



## PRODUCT PROPERTIES

- Two-component adhesive based on epoxy resin
- High mechanical strength
- Application even at high temperatures ( $\leq 40$  °C)
- High penetration

## AREAS OF APPLICATION

- Adhesive for high-tensile reinforcing sheets for reinforcement of components made of reinforced concrete and brickwork
- REACH-assessed exposure scenarios: periodical water-contact, periodical inhalation, application

## APPLICATION ADVICE

**Substrate Preparation:** Before application of MC-CarboSolid 1209 all substrates must be verified for load-bearing capacity and prepared by means of a suitable surface blasting method. The substrates must be dry (residual moisture  $\leq 6$  %, CM-method), free of cement laitance, dust, oil and other contaminants. A minimum pull-off strength of 1.5 N/mm<sup>2</sup> is required. The bonding surfaces of the substrate must be protected from increasing backwards moisture.

Before application of CF-sheets the evenness of the concrete surface must be checked. The levelling mortar MC-CarboSolid 1000 can be used for levelling (roughness < 1.0 mm) according to the application advice indicated in the technical data sheet.

**Mixing and Application:** MC-CarboSolid 1209 consists of two components, supplied in prepacked quantities. First, the base component is mixed thoroughly and then the hardener is added. Both components are mixed together thoroughly and homogeneously for at least 3 minutes. Slowly rotating mixers with paddle (max. 300 rpm) are suitable for mixing. Care should be taken to keep entrainment of air to a minimum while mixing. After mixing the resin must be refilled into a clean container and mixed again. The freshly applied CF-sheets are coated with MC-CarboSolid 1209. Care must be taken during application that the carbon fibres are completely embedded in the adhesive.

**General Information:** High temperatures shorten while low temperatures extend all indicated times and intervals. As a rule of thumb a change in temperature of 10 °C either halves or doubles the indicated pot life. Furthermore please note that higher temperatures reduce both the viscosity and the thixotropic properties of MC-CarboSolid 1209.

Varnish runs must be avoided. MC-CarboSolid 1209 should be stored inside at cool temperatures.

**Safety Advice:** Please take notice of the safety information and advice given on the packaging labels and safety data sheets.

## TECHNICAL VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments
Density (mixture)	kg/dm <sup>3</sup>	1.12	
Mixing ratio	p.b.w.	3 : 1	base component : hardener component
E-modulus	N/mm <sup>2</sup>	approx. 3,000	
Tensile strength (steel/steel)	N/mm <sup>2</sup>	14	Punch 20 mm Ø
Working time	minutes		
5 kg container		45	at 20 °C
10 kg container		40	at 20 °C
Application conditions <sup>1)</sup>	°C	≥ 8 ≤ 40	air and substrate temperatures
		≥ 15 ≤ 25	material temperature
	%	≤ 85	rel. humidity
	K	3	above dew point

All technical values are laboratory results determined at 21°C ±2°C and 50% relative humidity.

1) At substrate temperatures > 30 °C the different layers of MC-CarbonFiber Sheets must be applied fresh in fresh

Equipment cleaning agent	MC-Reinigungsmittel U
Delivery form	5 kg packs 10 kg packs
Colour	transparent
Storage	Can be stored in cool and dry conditions for at least 24 months in original unopened packs. Protect from frost.
Packaging disposal	Make sure single-use containers are completely empty.

GISCODE : RE30

**Note:** The information contained in this data sheet is based on our experience and is correct to the best of our knowledge. It is, however, not binding. It will need to be adapted to the requirements of the individual structure, to the specific application and to non-standard local conditions. Application-specific conditions must be checked in advance by the planning engineer/specifier and, where different from the standard conditions indicated, will require individual approval. Technical advice provided by MC's specialist consultants does not replace the need for a planning review by the client or its agents in respect of the history of the building or structure. Subject to this prerequisite, we are liable for the correctness of this information within the framework of our terms and conditions of sale and delivery. Recommendations of our employees deviating from the information given in our data sheets are only binding for us if they are confirmed in writing. In all cases, the generally accepted rules and practices reflecting the current state of the art must be observed. The information given in this technical data sheet is valid for the product supplied by the country company listed in the footer. It should be noted that data in other countries may differ. The product data sheets valid for the relevant foreign country must be observed. The latest technical data sheet shall apply to the exclusion of previous, duly superseded versions; the date of issue in the footer must be observed. The latest version is available from us on request or may be downloaded from our website. [2400020858]