

# MC-BetoSolid SX

Adhesive mortar for structural bonding



## PRODUCT PROPERTIES

- Two component, epoxy-based, adhesive and repair mortar
- High adhesion, steady, applicable overhead
- Water resistant and low-shrinkage
- Frost-thaw-salt resistant according to EN 13687-1
- Thermal compatibility thunder shower according to EN 13687-2
- Resistant to temperature changes (50 cycles, - 25 °C till + 55 °C)
- Good mechanical and chemical properties
- Solvent free
- Certified as surface protection acc. to EN 1504-2
- Certified as adhesive mortar for structural bonding acc. to EN 1504-4

## AREAS OF APPLICATION

- Structural bonding according to EN 1504-4 for bonded mortar or concrete, principle 4, procedure 4
- Gluing of concrete units and also of natural stones, fibre cement and ceramic units
- Gluing of steel, iron, cast iron, PVC (rough surface mechanically!), wood
- Repair mortar for broken or damaged concrete units and levelling out of uneven surfaces
- Filling of cavities
- Joint repair and filling

## APPLICATION ADVICE

**Subsurface Preparation:** The surface has to be clean, rough and dry, hard, solid and free of all loose particles, dust, oil and releasing effective substances.

**Subsurface Testing:** Before gluing with MC-BetoSolid SX, the concrete substrate must be tested. An adhesive tensile strength of 1,5 N/mm<sup>2</sup> is required. Acceptable surface moisture has to be less than 4 %.

**Mixing:** Before application of MC-BetoSolid SX the two components have to be mixed accurately with slow rotating mixers (approx. 300 - 400 rpm). Both are delivered in prepacked quantities. It is recommended to use anchor shaped agitator. The component B has to be added into component A and mixed until it is homogenous. After mixing the compound must be placed into another clean container and briefly mixed again.

**Application:** The processing of MC-BetoSolid SX is carried out with a trowel. The components, which have to be bonded, must be provided each with material. On the first component the adhesive should be applied in thin layer. On the second component MC-BetoSolid SX should be applied in thick layer with the desired amount. Spacers are required.

**Clean-up:** After every application of MC-BetoSolid SX the tools have to be cleaned with a solvent-based cleaning agent.

**General Information:** Coverage, application times, resistance to foot traffic and time until resistance are determined by temperature, site properties and conditions. For the application of epoxy-based materials the temperature of the substrate is of importance. High temperatures shorten and low temperatures extend all indicated times and intervals.

Chemical attacks and exposure to light might cause changes in the colour, which usually do not affect the properties and its usability.

## TECHNICAL VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments
Density	g/cm <sup>3</sup>	1.6	mixture
Mixing ratio	p.b.w.	100 : 9.1	base component : hardener component
Flexural strength	N/mm <sup>2</sup>		
24 h		25	
7 d	N/mm <sup>2</sup>	30	
E-modulus (dynamic)	N/mm <sup>2</sup>	5,200	after 28 days
Glass transition temperature	°C	53.9	EN 12614
Bond shear strength (concrete)	N/mm <sup>2</sup>		
7 d	N/mm <sup>2</sup>	approx. 5.5	
Tensile strength	N/mm <sup>2</sup>		EN ISO 1542
7 d		> 2.5	
Working time	minutes	approx. 45	at 20 °C
Application conditions	°C	≥ 8 ≤ 35	Temperatura del aire, soporte y material
Substrate moisture content		≤ 4	mineral surface without pore water
Maximum grain size	mm	0.5	
Total shrinkage	%	0.03	EN 12617-3
Compressive strength	N/mm <sup>2</sup>		
24 h		40	
7 d	N/mm <sup>2</sup>	45	Final value
Layer thickness	mm	≥ 5	single-layer
		≤ 30	single-layer
Shear strength	N/mm <sup>2</sup>	approx. 16	EN 12615
Accessible after	hours	approx. 6	
Resistant to de-icing salts		yes	per EN 13687-1
Consumption	kg/m <sup>2</sup>	approx. 1.6	per mm layer thickness

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

Self-monitoring	EN ISO 9001
Delivery form	2.5 kg bucket; 1 pallet (54 buckets per 2.5 kg) 5 kg bucket; 1 pallet (54 buckets per 5 kg) 10 kg bucket; 1 pallet (36 buckets per 10 kg) The components are delivered in a concerted mixing ratio
Colour	Concrete grey
Storage	Can be stored in cool and dry conditions for at least 12 months in original unopened packs. Protect from frost.
Packaging disposal	Make sure single-use containers are completely empty.

### Safety instructions

Please note the safety information and advice given on the packaging labels and safety data sheets.

**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. [2400020623]