



MC-BetoSolid SX (formerly SX 481 E)

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 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 4.4
- 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 Notes

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 substrate must be tested. An adhesive tensile strength of 1,5 N/mm² 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 Data for MC-BetoSolid SX

Characteristic	Unit	Value*	Comments
Mixing ratio (A : B)		100 : 9.1	-
Grain size	mm	0.5	
Density	g/cm ³	1.6	-
Layer thickness	mm	approx. 5 - 30	single layer
Consumption	kg/m ²	approx. 1.6	per mm layer thickness
Application time	minutes	45	at 20°C
Accessible / Overworkable	hours	6 / 12 - 24	
Flexural/Compressive strength	N/mm ²	25/40 30/45	After 1 day After 7 days, final hardened
Adhesive strength	N/mm ²	> 2.5	After 7 days, according to EN 1542
Bond shear strength (concrete)	N/mm ²	approx. 5.5	After 7 days
Shear strength hardened - hardened concrete	N/mm ²	approx. 16	according to EN 12615
Dynamic modulus of elasticity	N/mm ²	5.200	after 28 days
Application conditions	°C	≥ +8 - ≤ +35	Air/material/substrate temperature
Transition temperature	°C	53.9	according to EN 12614
Shrinkage / expansion	%	0.03	according to EN 12617-3
Frost-thaw-salt resistancy	-	yes	according to EN 13687-1

*All values has been determined in the lab at 23 °C and 65 % relative humidity.

Product Characteristics for MC-BetoSolid SX

Factory control according to	DIN EN ISO 9001
Colour	concrete-grey
Form	liquid, pasty, twin pack
Delivery	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
Storage	Can be stored in dry conditions for at least one year in original unopened packs. Protect from frost!
Disposal	Packs must be emptied completely

Safety advice

Please take notice of the safety information and advice given on the packaging labels and safety data sheets. Water hazardous class 2; GHS CODE: RE1

Note: The information on this data sheet is based on our experiences and correct to the best of our knowledge. It is, however, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this data within the scope of our terms and conditions of sale-delivery-and-service. Recommendations of our employees which differ from the data contained in our information sheets are only binding if given in written form. The accepted engineering rules must be observed at all times.

Edition 09/19. Some technical changes have been made to this print medium. Older editions are invalid and may not be used anymore. If a technically revised new edition is issued, this edition becomes invalid.