## Technical Data Sheet Product number 5777







## Betofix EM 8 2K

PCC I (RC) concrete replacement mortar for static repair of concrete structures

Colour	Availability				
	Quantity per pallet	24	30	1	1000
	Size / Quantity	25 l	40 kg	1000 l	
	Type of container	Plastic canister	Paper bag	Container	
	Container code	25	40	61	62
	Art. no.				
Betofix EM 8 2K (cement grey)	5777				
Betofix EM LQ	5780				
Attention!					

Betofix EM LQ is the corresponding mixing liquid; please order separately under its own article number! Minimum order quantity: 3 pallets; 6 tonnes/silo for silo goods.

Application rate	Approx. 2.0 kg/m²/mm coating thickness, or 2.0 kg/dm³
2.0 kg/ mm thickness ↓ ↓ ↓ 1m <sup>2</sup>	
Range of use	Concrete replacement for structurally relevant repairs
	Concrete replacement according to
	- DIN EN 1504-3
	- Rili-SIB DAfStb 2001
	- ZTV-ING
	Repair and anode embedding mortar for cathodic corrosion protection
Property profile	High mechanical resistance
	High resistance to water penetration
	Very low shrinkage
	Can be applied by machine
	Freeze/thaw-resistant

Planning information





	Betofix EM 8 2K - Classification						
	acc. to Rili-Sib 2001	M3					
	acc. to DIN EN 1504-3	R4					
	Old concrete classes	A2	A3	A4			
	Reaction to fire	Class A2fl-s1	(DIN EN 13501-1)				
	Impacts from the environment						
	Carbonation	XC1	XC2	XC3	XC4		
	Chlorides excluding seawater	XD1	XD2	XD3			
	Chlorides from seawater	XS1	XS2	XS3			
	Frost attack with/without de-icing agent	XF1	XF2	XF3	XF4		
	Chemical attack	XA1	XA2*	XA3**			
		* without sulphate attack ** protective measures required for - chemical attack XA3 or higher - high flow rate of water and interaction of chemicals					
	Moisture class classification	WO	WF	WA			
	Impacts from the concrete substrate	e					
	Backfacing water	XBW1	XBW2				
	Freshwater or seawater loads	XW1	XW2				
	Static effect	XSTAT					
	Application						
	Repair principles/procedures	3.1 3.2	4.4 5.3	6.3 7.1	7.2 7.4	10.1	
Characteristic data of the product	Shrinkage	7 days: -0.30 28 days: -0.44 90 days: -0.6	8 mm/m				
	Bulk density	Approx. 1.8 k	g/dm³				
	Capillary water uptake	≤ 0.5 kg/(m²ł	1 <sup>0.5</sup> )				
	Flexural strength	1 day: 5 N/mi 7 days: 8 N/n 28 days: 9 N/ 90 days: 14 N	nm² mm²				
	Compressive strength	1 day: 27 N/m 7 days: 48 N/ 28 days: 55 N 90 days: 63 N	mm² /mm²				
	Dynamic E-modulus	39 x 10³ N/m	m² (at 23 °C)				
	Maximum grain size	8 mm					
	External surveillance	KIWA					
	Bulk density of fresh mortar	Approx. 2.3 k	g/dm³				
	Consistency	Plastic					
	The values stated represent typical charac	teristic data of th	e product and are no	t to be understood	as binding product	t specifications.	
Possible system products	<ul> <li>Betofix KHB EM (5779)</li> <li>Betofix EM LQ (5780)</li> </ul>						
Preparation	Substrate requirements Concrete surface: Stable, clean, dust-free Observe the applicable technical re - Adhesive pull strength of the subs - Minimum roughness/roughness du Pre-wet the substrate so that it is sl	strate epth	he following para	meters:			

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	<b>Reinforcement:</b> Degree of purity SA 2 ½ if applying corrosion protection, otherwise SA 2
Production of the mixture 40 $0$ $341$ $4$ Min.	<ul> <li>Mixing</li> <li>3.4 l Betofix EM LQ (art. 5780) with 40 kg Betofix EM 8 2K</li> <li>Prepare mixing liquid, add dry mortar and mix until homogeneous.</li> <li>Mixing time: approx. 4 minutes</li> </ul>
Directions $ \begin{array}{c}                                     $	<ul> <li>Conditions for use Temperature of the material, air and substrate: from min. +5 °C to max. +30 °C. Low temperatures increase, while high temperatures decrease the working and setting time. Once it has hardened, mortar must not be made workable again by adding either water or more wet mortar.</li> <li>Working time (+20 °C): Approx. 60 minutes</li> <li>Layer thickness Single layer 25 - 100 mm</li> <li>A bonding layer is required when applying manually. Apply wet-on-wet.</li> <li>Subsequent processing Protect fresh mortar surfaces from wind, direct sunlight, rain and/or frost for at least 3 days so that they do not dry too quickly.</li> <li>Machine working Please contact Remmers Technical Service (phone +49 5432 83900) before applying with machine processing.</li> </ul>
Tips on use	Protect pretreated reinforcement against corrosion with a double application of Betofix KHB EM. Use screed rails to ensure that the product is poured to the correct height.
Tools / Cleaning	Mixer, trowel, aluminium rule, finishing trowel, power trowel Clean tools with water while the material is still fresh. Remmers tools Mischgefäß (4030) Heizkörperpinsel (4541) Smoothing Trowel (4004) Glättkelle (4117) Smoothing Trowel Duo (4118) Schwammbrett gelb (4936) Latex float (4548)
Storage / Shelf life	If stored in an unopened container and in a dry place, the product will keep for approx. 12 months.
Safety data / Regulations	For further information on the safety aspects of transporting, storing and handling the product and on disposal and environmental matters, please see the current Safety Data Sheet.
Disposal	Larger quantities of leftover product should be disposed of in the original containers in accordance with the applicable regulations. Completely empty, clean containers should be recycled. Do not dispose of together with household waste. Do not allow to enter the sewage system. Do not empty into drains.





Declaration of conformity

## CE

Remmers GmbH Bernhard-Remmers-Str. 13, D – 49624 Löningen

18 GBI P60-2 EN 1504-3: ZA.1a 5777

Product for structural and non-structural repair for concrete

Compressive strength:	class R4
Chloride ion content:	< 0.05 %
Adhesive bond:	≥ 2 MPa
Carbonation resistance:	passed
Elastic modulus:	≥ 20 GPa
Thermal compatibility part 1 & 4:	≥ 2 MPa
Capillary absorption:	≤ 0.5 kg/(m²h⁰.5)
Reaction to fire:	class A2fl-s1
Dangerous substances:	see Safety Data Sheet

Please note that the data and information given above have been calculated as guidelines in the laboratory and from real-life experience and are therefore not binding as a basic principle.

This information is therefore of a general nature only and describes our products and how they are used and worked with. In this respect, it must be borne in mind that the varied and diverse nature of the prevailing working conditions, materials used and construction sites encountered means that not every individual case can be covered. In this respect, we therefore recommend either conducting tests or liaising with us in the event of any doubt. Unless we have provided express written assurance of the products' specific suitability or characteristics in respect of a contractually stipulated intended use, any technical application-related advice or instruction will never be binding, even though it is provided to the best of our knowledge. In all other respects, our general terms and conditions of sale and delivery shall apply.

When a new version of this Technical Data Sheet is published, it shall replace the previous version.