



Betofix R4 EM [basic]

PCC I (RM)

Concrete replacement mortar for repairing concrete structures/screed mortar

Colour	Availability	
	Quantity per pallet	36
	Size / Quantity	25 kg
	Type of container	Paper bag
	Container code	25
	Art. no.	
grey	1086	■

Application rate Approx. 2.0 kg/m²/mm layer thickness, or 2.0 kg/dm³



Range of use



- Concrete replacement for structurally relevant repairs
- Concrete replacement according to
- DIN EN 1504-3
- Industrial screeds
- Bonded screed, floating screed and screed on separating layer
- Heated screeds

Property profile

- High mechanical resistance
- Freeze/thaw-resistant
- Very low shrinkage
- Can be applied by machine

Planning information

Betofix R4 EM [basic] - Classification							
acc. to DIN EN 1504-3	R4						
Old concrete classes	A3	A4					
Reaction to fire	Class A1 fl						
Effects arising from the environment							
Carbonation	XC1	XC2	XC3	XC4			
Chlorides excluding seawater	XD1	XD2					
Chlorides from seawater	XS1	XS2					
Freeze-thaw with/without de-icing agent	XF1	XF2	XF3	XF4			
Chemical attack	XA1						
Abrasion	XM1	XM2	XM3				
Humidity class	WO	WF	WA				
Application							
Repair principles/procedures	3.1	3.2	4.4	5.3	6.3	7.1	7.2

Characteristic data of the product



Water requirement	Approx. 7.5% corresponds to 1.9 l/25 kg
Resistance to ground	$7 \times 10^6 \Omega$
Wear resistance	A9
Flexural strength	28 d: $\geq 8.0 \text{ N/mm}^2$
Compressive strength	1 day: $\geq 15 \text{ N/mm}^2$ 7 days: $\geq 35 \text{ N/mm}^2$ 28 days: $\geq 50 \text{ N/mm}^2$
Maximum grain size	5 mm

The values stated represent typical characteristic data of the product and are not to be understood as binding product specifications.

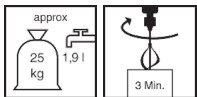
Possible system products

- [Betofix HB ^{\[basic\]} \(1082\)](#)
- [Betofix KHB \(1087\)](#)
- [Betofix NBM \(1230\)](#)

Preparation

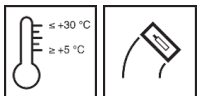
- **Substrate requirements**
Concrete surface:
Stable, clean, dust-free
Observe the applicable technical regulations for the following parameters:
 - Adhesive pull strength of the substrate
 - Minimum roughness/roughness depthPre-wet the substrate so that it is slightly moist.
Reinforcement:
Degree of purity SA 2 ½ if applying corrosion protection, otherwise SA 2

Production of the mixture



- **Mixing**
Prepare water, add dry mortar and mix until homogeneous.
Mixing time: approx. 3 minutes

Directions



- **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.

Processing time
(+20 °C): approx. 90 minutes

Layer thickness
Single layer thickness < 80 mm
Layer thickness in breakouts up to max. 100 mm
In the case of bonded screeds, apply the product while the bonding layer is still wet.

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.

Machine working
Please contact Remmers Technical Service (phone +49 5432 83900) before applying with machine processing.

Tools / Cleaning



Mixing tool, trowel, aluminium rule, finishing trowel, power trowel

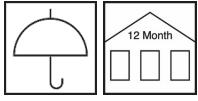
Clean tools with water while the material is still fresh.

- Remmers tools
- [Mischgefäß \(4030\)](#)
 - [Smoothing Trowel \(4004\)](#)
 - [Glättkelle \(4117\)](#)
 - [Smoothing Trowel Duo \(4118\)](#)
 - [Bodenglätter \(4116\)](#)



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 performance

> [Declaration of performance](#)

Declaration of conformity



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CE 09 / UKCA 21

GBI P87

EN 1504-3: 2005

1086

Product for structural and non structural repair for concrete

Compressive strength:	class R4
Chloride ion content:	≤ 0.05 %
Adhesive bond:	≥ 2.0 MPa
Restrained shrinkage/expansion:	≥ 2.0 MPa
Carbonation resistance:	passed
Elastic modulus:	≥ 20 GPa
Thermal compatibility:	≥ 2.0 MPa
Capillary absorption:	≤ 0.5 kg / (m ² h ^{0.5})
Dangerous substances:	In accordance with 5.4
Reaction to fire:	class A1

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.