



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	7.4

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:

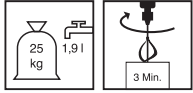
- Adhesive pull strength of the substrate
- Minimum roughness/roughness depth

Pre-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

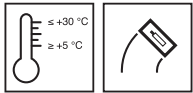


■ Mixing

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.

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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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.