



## Betofix R4 S CP

Fibre-reinforced PCC/SPCC for static repair of concrete structures / Repair and anode bedding mortar for cathodic protection

Colour	Availability
	Quantity per pallet 36
	<b>Size / Quantity</b> 25 kg
	Type of container Paper bag
	Container code 25
	<b>Art. no.</b>
grey	1106 ■

Application rate Approx. 2.0 kg/m<sup>2</sup>/mm layer thickness or 2.0 kg/dm<sup>3</sup>



### Range of use



- Concrete replacement for structurally relevant repairs
- Concrete replacement according to  
- DIN EN 1504-3
- Repair and anode bedding mortar for cathodic protection
- Wet spraying method

### Property profile

- High carbonation resistance
- High resistance to water penetration
- Good water retention capacity, low content of mixing water needed
- Very low shrinkage
- Freeze/thaw-resistant

### Planning information

Betofix R4 S CP - Classification										
acc. to DIN EN 1504-3	R4									
Old concrete classes	A3	A4								
Reaction to fire	Class A1									
Impact from the environment										
Carbonation	XC1	XC2	XC3	XC4						
Chlorides without saltwater	XD1	XD2	XD3							
Chloride with saltwater	XS1	XS2	XS3							
Frost with/without de-icing agent	XF1	XF2	XF3	XF4						
Chemical attack	XA1									
Wear stress	XM1	XM2								
Moisture class assignment	WO	WF	WA							
Use										
Maintenance principles/procedures	3.1	3.2	3.3	4.4	5.3	6.3	7.1	7.2	7.4	10.1

### Characteristic data of the product



Water requirement	Approx. 3.5 l/25 kg
Capillary water uptake	$\leq 0.5 \text{ kg}/(\text{m}^2\text{h}^{0.5})$
Compressive strength	1 d = $\geq 15 \text{ N/mm}^2$ 7 d = $\geq 40 \text{ N/mm}^2$ 28 d = $\geq 50 \text{ N/mm}^2$
Flexural tensile strength (28 days)	$\geq 8.0 \text{ N/mm}^2$
Dynamic E-modulus	$\geq 25000 \text{ N/mm}^2$
Surface tensile strength	$\geq 2.0 \text{ N/mm}^2$
Maximum grain size	2 mm
External surveillance	QDB

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

#### Possible system products

➤ **Betofix KHB (1087)**

#### Preparation

##### ■ Substrate requirements

###### **Concrete surface:**

Stable, clean, dust-free

Observe the applicable technical regulations for the following parameters:

- Adhesive pull strength of the substrate

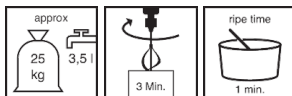
- Minimum roughness/roughness depth

Pre-wet the substrate so that it is slightly moist.

###### **Reinforcement:**

Degree of purity SA 2 1/2 if applying corrosion protection, otherwise SA 2

#### Production of the mixture



##### ■ Mixing

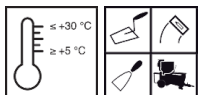
Prepare water, add dry mortar and mix until homogeneous.

**Mixing time:** approx. 3 minutes

**Maturing time:** approx. 1 minute.

**Final mixing time:** approx. 1 minute

#### 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.

Mortar that has already set cannot be made workable again by adding water or fresh mortar.

###### **Working time**

(+20 °C): Approx. 60 minutes

###### **Layer thickness**

Single layer 5 - 25 mm

Two layers < 50 mm, apply wet on wet

Single layer in broken-out areas < 80 mm

The pre-wet substrate must still be slightly absorbent.

Dilute the product slightly before applying the product to hard-to-reach places in the form of contact sludge.

Apply desired layer thickness and smooth off.

After sufficient drying, felt, rub, smooth or structure the surface.

###### **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, smoothing trowel, scraper

Clean tools with water while the material is still fresh.

Remmers tools

➤ **Mischgefäß (4030)**

➤ **Profile Trowel (5047)**

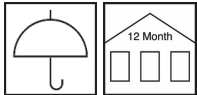
➤ **Rundkelle (4114)**



- [Smoothing Trowel \(4004\)](#)
- [Glättkelle \(4117\)](#)
- [Smoothing Trowel Duo \(4118\)](#)

#### 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



0921

**Remmers GmbH**

Bernhard-Remmers-Str. 13, D – 49624 Lönigen

21

**GBI P 85**

EN 1504-3: 2005

**1106**

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:	NPD
Elastic modulus:	≥ 20 GPa
Thermal compatibility part 1 & 4:	≥ 2.0 MPa
Skid resistance:	NPD
Capillary absorption:	≤ 0.5 kg/(m <sup>2</sup> h <sup>0.5</sup> )
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.