Technical Data Sheet
Art. No. 1100

Betofix SPCC

fibre-reinforced SPCC dry mortar for the static repair of concrete structures

One-component, high strength, plastic modified spray-on mortar (SPCC system) with high sulphate resistance and low effective alkali content

Range of use
- Concrete building elements in areas that are exposed to high chemical loads (up to exposure Class XA3 included)
- Concrete replacement in areas exposed to static and dynamic loads
- In sewage systems and water treatment plants with high chemical aggression (pH 3.35)
- In potable water systems according to the DVGW provisions W 270, W 300 and W 347
- Supporting walls, facades, slabs and balconies
- Under road coverings on bridges and in car parks
- Indoors, outdoors, wet areas in new and old buildings
- Waterproofing of reservoirs against inside water pressure in drinking water, sewage and agricultural plants

Certified according to the DIN EN 1504–3 for the exposure Class R4

Characteristic data of the product

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>grey</td>
</tr>
<tr>
<td>Largest grain</td>
<td>2 mm</td>
</tr>
<tr>
<td>Water demand</td>
<td>approx. 10.7 %</td>
</tr>
<tr>
<td>Compression strength</td>
<td>after 1 day: ≥ 15 N/mm²</td>
</tr>
<tr>
<td></td>
<td>after 7 days: ≥ 40 N/mm²</td>
</tr>
<tr>
<td></td>
<td>after 28 days: ≥ 45 N/mm²</td>
</tr>
<tr>
<td>Flexural strength (EN 12190)</td>
<td>≥ 8.0 N/mm²</td>
</tr>
<tr>
<td>Dynamic elastic modulus</td>
<td>≥ 25000 N/mm²</td>
</tr>
<tr>
<td>Adhesion capacity (EN 1542)</td>
<td>≥ 2.0 N/mm²</td>
</tr>
<tr>
<td>Reaction to fire</td>
<td>Class A1</td>
</tr>
<tr>
<td>Exposure classification</td>
<td>EN 206-1/DIN 1045-2:</td>
</tr>
<tr>
<td>Carbonation</td>
<td>XC1, XC2, XC3, XC4</td>
</tr>
<tr>
<td>Chlorides without sea water</td>
<td>XD1, XD2, XD3</td>
</tr>
<tr>
<td>Chlorides from sea water</td>
<td>XS1, XS2, XS3</td>
</tr>
<tr>
<td>Frost aggression with/without de-</td>
<td>XF1, XF2, XF3, XF4</td>
</tr>
<tr>
<td>icing agents</td>
<td></td>
</tr>
<tr>
<td>Exposure to chemicals</td>
<td>XA1, XA2, XA3</td>
</tr>
<tr>
<td>Wear resistance</td>
<td>XM1, XM2</td>
</tr>
<tr>
<td>Moisture exposure classification</td>
<td>WO, WF, WA, WS</td>
</tr>
<tr>
<td>External monitoring</td>
<td>QDB, KIWA</td>
</tr>
</tbody>
</table>

Property profile
Betofix SPCC is a factory-mixed, fast repair mineral, dry mortar that is ready to use after mixing with water and sets hydraulically.

It can be produced with all conventional positive mixers.

Betofix SPCC hardens with low shrinkage and does not need any addition bonding.
The polymer additives favour the adhesion properties of the mortar, that is especially suited for application on vertical surfaces and overhead. Once hardened the mortar is resistant to water, weather, frost and de-icing salt.

**Work preparation**

**Requirements of the substrate**
Solid, clean and dust-free.

**Preparation**
At the time of application the substrate must be dry to matt damp, sound and loadbearing. Remove loose material that could interfere with adhesion and cement grout by sandblasting, bush hammering, milling or similar treatment. The substrate must also be sufficiently rough. The pull-off strength of the substrate must correspond to the relevant technical rules. The pre-wet substrate should be still slightly absorbent.

Derust exposed reinforcement steel to blank metal SA 2 ½ and remove dust and grease.

**Notes on application**

In coating are applied subsequently, the surface structure must comply with the requirements of the Rili-SIB guideline.

Protect the mortar surface for at least 4 days from too fast dehydration and weather influences (sun, wind, rain, drafts and frost).

**Notes**

Initially set mortar cannot be made workable again by adding water or fresh mortar.

The characteristic data given for this product were determined under laboratory conditions at 23 °C and 50 % relative humidity.

May contain traces of pyrite (iron sulphide).

The surface should be free of cracks hairline cracks/shrinkage cracks are harmless and are not to be faulted since they do not compromise the technical properties of the product.

If, after the repair work, the concrete cover is < 10 mm, the reinforcement rods must be protected from corrosion with Betofix KHB.

The material can be applied on wider surfaces with a thickness of 10 mm up to max. 50 mm, and of max. 80 mm in cavities.

**Possible system products**
- Betofix KHB (1087)

**Packaging**
25 kg paper bag

**Application rate, shelf-life**
Ca. 2,0 kg/m²/mm of thickness, i.e. ca. 2,0 kg/dm³

**Shelf-life**
At least 9 months stored dry in closed bags

**Safety**
Further information on safety when transporting, storing and handling as well as disposal and ecology is found in the latest Safety Data Sheet.

**Tools, cleaning**
Non absorbent or plastic-coated timber formwork, mixing equipment, trowel, float.

We recommend the WM Variojet FU as a batch mixer with a Mader feed pump.

Suitable for the MRT system (ombra spinning procedure) of HDT GmbH.

Clean tools with water before the setting of the mortar.

**Notes on application**

In coating are applied subsequently, the surface structure must comply with the requirements of the Rili-SIB guideline.

Protect the mortar surface for at least 4 days from too fast dehydration and weather influences (sun, wind, rain, drafts and frost).

**Notes**

Initially set mortar cannot be made workable again by adding water or fresh mortar.

The characteristic data given for this product were determined under laboratory conditions at 23 °C and 50 % relative humidity.

May contain traces of pyrite (iron sulphide).

The surface should be free of cracks hairline cracks/shrinkage cracks are harmless and are not to be faulted since they do not compromise the technical properties of the product.

If, after the repair work, the concrete cover is < 10 mm, the reinforcement rods must be protected from corrosion with Betofix KHB.

The material can be applied on wider surfaces with a thickness of 10 mm up to max. 50 mm, and of max. 80 mm in cavities.

**Possible system products**
- Betofix KHB (1087)

**Packaging**
25 kg paper bag

**Application rate, shelf-life**
Ca. 2,0 kg/m²/mm of thickness, i.e. ca. 2,0 kg/dm³

**Shelf-life**
At least 9 months stored dry in closed bags

**Safety**
Further information on safety when transporting, storing and handling as well as disposal and ecology is found in the latest Safety Data Sheet.

**Tools, cleaning**
Non absorbent or plastic-coated timber formwork, mixing equipment, trowel, float.

We recommend the WM Variojet FU as a batch mixer with a Mader feed pump.

Suitable for the MRT system (ombra spinning procedure) of HDT GmbH.

Clean tools with water before the setting of the mortar.

**Notes on application**

In coating are applied subsequently, the surface structure must comply with the requirements of the Rili-SIB guideline.

Protect the mortar surface for at least 4 days from too fast dehydration and weather influences (sun, wind, rain, drafts and frost).

**Notes**

Initially set mortar cannot be made workable again by adding water or fresh mortar.

The characteristic data given for this product were determined under laboratory conditions at 23 °C and 50 % relative humidity.

May contain traces of pyrite (iron sulphide).

The surface should be free of cracks hairline cracks/shrinkage cracks are harmless and are not to be faulted since they do not compromise the technical properties of the product.

If, after the repair work, the concrete cover is < 10 mm, the reinforcement rods must be protected from corrosion with Betofix KHB.

The material can be applied on wider surfaces with a thickness of 10 mm up to max. 50 mm, and of max. 80 mm in cavities.

**Possible system products**
- Betofix KHB (1087)

**Packaging**
25 kg paper bag

**Application rate, shelf-life**
Ca. 2,0 kg/m²/mm of thickness, i.e. ca. 2,0 kg/dm³

**Shelf-life**
At least 9 months stored dry in closed bags

**Safety**
Further information on safety when transporting, storing and handling as well as disposal and ecology is found in the latest Safety Data Sheet.

**Tools, cleaning**
Non absorbent or plastic-coated timber formwork, mixing equipment, trowel, float.

We recommend the WM Variojet FU as a batch mixer with a Mader feed pump.

Suitable for the MRT system (ombra spinning procedure) of HDT GmbH.

Clean tools with water before the setting of the mortar.

**Notes on application**

In coating are applied subsequently, the surface structure must comply with the requirements of the Rili-SIB guideline.

Protect the mortar surface for at least 4 days from too fast dehydration and weather influences (sun, wind, rain, drafts and frost).

**Notes**

Initially set mortar cannot be made workable again by adding water or fresh mortar.

The characteristic data given for this product were determined under laboratory conditions at 23 °C and 50 % relative humidity.

May contain traces of pyrite (iron sulphide).

The surface should be free of cracks hairline cracks/shrinkage cracks are harmless and are not to be faulted since they do not compromise the technical properties of the product.

If, after the repair work, the concrete cover is < 10 mm, the reinforcement rods must be protected from corrosion with Betofix KHB.

The material can be applied on wider surfaces with a thickness of 10 mm up to max. 50 mm, and of max. 80 mm in cavities.

**Possible system products**
- Betofix KHB (1087)

**Packaging**
25 kg paper bag

**Application rate, shelf-life**
Ca. 2,0 kg/m²/mm of thickness, i.e. ca. 2,0 kg/dm³

**Shelf-life**
At least 9 months stored dry in closed bags

**Safety**
Further information on safety when transporting, storing and handling as well as disposal and ecology is found in the latest Safety Data Sheet.

**Tools, cleaning**
Non absorbent or plastic-coated timber formwork, mixing equipment, trowel, float.

We recommend the WM Variojet FU as a batch mixer with a Mader feed pump.

Suitable for the MRT system (ombra spinning procedure) of HDT GmbH.

Clean tools with water before the setting of the mortar.

**Notes on application**

In coating are applied subsequently, the surface structure must comply with the requirements of the Rili-SIB guideline.

Protect the mortar surface for at least 4 days from too fast dehydration and weather influences (sun, wind, rain, drafts and frost).

**Notes**

Initially set mortar cannot be made workable again by adding water or fresh mortar.

The characteristic data given for this product were determined under laboratory conditions at 23 °C and 50 % relative humidity.

May contain traces of pyrite (iron sulphide).

The surface should be free of cracks hairline cracks/shrinkage cracks are harmless and are not to be faulted since they do not compromise the technical properties of the product.

If, after the repair work, the concrete cover is < 10 mm, the reinforcement rods must be protected from corrosion with Betofix KHB.

The material can be applied on wider surfaces with a thickness of 10 mm up to max. 50 mm, and of max. 80 mm in cavities.