

## Specifications FloorBridge® RC 20/30

### - Renovation -

#### General Preliminary Remarks

##### **Preliminary Remarks:**

The tendering contractor is to obtain information about the scope of the works to be performed, taking into account the local circumstances before submitting an offer/tender. Concerns about the nature of the works proposed in the tender should be shared with the client in written form. Only one system is to be used. The replacement of individual system parts with those of another system is not permitted. Regulations for accident prevention are to be observed.

##### **Equal quality:**

The items list below show products as examples to ensure a uniform floor design and that quality, from a building and processing standpoint, exceeds the relevant minimum requirements. Beyond the properties of the materials, the equivalence also consists of manufacturers' proof of quality control (ISO 9001 certificate) as well as the examinations of colour design, building survey and associated expert reports. In the case of unfilled bidder slots the product examples provided are to be considered offers.

##### **Technical building requirements:**

Prior to beginning, all surfaces to be glued must be inspected for workability and suitability. At increased chloride values of the concrete components in the joint area, these defective areas must be treated separately before bonding of FloorBridge® joint profiles. This includes the bond strength measurement, compression strength, surface level and residual moisture content. The residual moisture content for bonding the joint profile should be max. 4 %; with increased residual moisture content a suitable adhesive must be used, and the joint profile must be bonded at falling substrate temperatures. The minimum temperature thresholds listed must not be fallen below. If the temperature falls below the dew point bonding and coating works must be stopped. The application must adhere to the curing times stated in the technical data sheets. The concrete substrate must comply with the site-specific requirements and must meet the following minimum values following substrate preparation: tensile bonding strength at least 1.5 N / mm<sup>2</sup>, compressive strength at least 30 N / mm<sup>2</sup>. If the substrate is to be re-profiled, the re-profiling mortar must meet the site-specific requirements and have a minimum compressive strength of 60 N / mm<sup>2</sup>. The substrate must meet technical building standards and requirements, be stable, firm, sufficiently rough, free of cement laitance, dirt, fats, oils, wax, water repellent material or other layers that can prevent or reduce bonding. Generally, following the required substrate preparation the concrete adhesion strength value must reach a minimum of 1.5 N/mm<sup>2</sup>.

##### **Technical requirements reaction resin:**

When working with reaction resin-based two or more component materials the minimum temperatures, relative humidity, moisture content of the substrate, mixing-ratio, pot-life, over-coating times etc. must be observed and adhere to, exactly to the figures stated in the manufacturer's technical data sheets.

##### **Demolition waste removal, disposal of empty containers and packaging:**

The waste removal from the construction site and the proper disposal of accumulated waste from renovation and restoration measures must be in accordance with the relevant national waste removal directives and is to be included in the unit price. Removing all empty containers and packaging by transferring them to a legitimate, approved waste removal system. These activities must be demonstrated with the appropriate documentation. These costs are to be included in the unit price.

##### **Dishing in the joint area:**

When the concrete dishes in the joint area it must be grinded down to the correct height before applying FloorBridge®.

## **Installing the joint profile: FloorBridge® RC 20/30**

### **01.0001.**

#### **Setting up the construction site**

Arrangement of the construction site and technical support as well as all material transport and one time arrival and departure of operatives and clearing the construction site. Necessary electricity costs will be provided on site.

### **01.0002. Contingency item:**

#### **Defective steel, aluminium or other expansion joint profile to be handled as follows:**

Removal and disposal of the existing profile (steel, aluminium or other). Next, two cuts will be made about 260 mm apart. The concrete between them (as well as any existing floor covering or epoxy layers) removed to a depth of ca. 20 - 23 mm for FloorBridge® RC 20/30. This is to be properly disposed of.

If water tightness is required: If a sealing membrane is installed under the joint profile, there must be chiseled out deeper by approx. 5 mm.

A vacuum device is to be allowed for. The subsurface is to be handled so as to reach a bond strength measurement of at least 1.5 N/mm<sup>2</sup>.

### **01.0002a. Contingency item:**

#### **Defective joint is to be handled as follows:**

Removal and disposal of the existing plastic, polyurethane or silicone profile. Next, two cuts will be made about 260 mm apart. The concrete between them (as well as any existing floor covering or epoxy layers) chipped out to a depth of ca. 20 - 23 mm for FloorBridge® RC 20/30. This is to be properly disposed of.

If water tightness is required: If a sealing membrane is installed under the joint profile, there must be chiseled out deeper by approx. 5 mm.

A vacuum device is to be allowed for. The subsurface is to be handled so as to reach a bond strength measurement of at least 1.5 N/mm<sup>2</sup>.

### **01.0002b. Contingency item:**

#### **Making the cavity for FloorBridge®**

Making the cavity for the installation of the joint profile by milling or chipping the existing concrete (including any existing floor coverings, resin layers, etc.) in the joint area. The material removed is to be properly disposed of. The substrate is to be prepared in such way as to reach a bond strength value of at least 1.5 N/mm<sup>2</sup> and must be dust-free.

### **01.0003. Contingency item:**

#### **Substrate reprofiling with epoxy mortar**

If there are larger defects (> 10 mm) in the substrate, these areas must be treated with a bonding coat of a solvent-free epoxy primer. A solvent-free epoxy reaction resin mortar will be immediately applied fresh on fresh onto the primer. The mix ratio and the aggregate grading are to be determined based on the depth of the defects. The compressive strength of the built-in reprofiling mortar must meet the site requirements and have a minimum strength of 60 N/mm<sup>2</sup>.

### **01.0003a. Contingency item:**

#### **Additional layers of epoxy mortar**

Additional layers of epoxy mortar (as in the previous item) for additional layer thickness required, priced every 5 mm for additional layers.

### **01.0004.**

#### **FloorBridge® SM 150 - sealing system**

Supply and installation of FloorBridge® SM 150, bonded high-performance sealing membrane for sealing existing expansion joints (product data sheet and installation instructions must be strictly observed).

Sealing membrane: FloorBridge® SM 150

Adhesive: FloorBridge® Connect 01/03

Membrane width: ca. 15 cm

Elongation at break: > 750 % (DIN EN ISO 527-3)

### **01.0004a.**

#### **Vertical bonding FloorBridge® - FloorBridge® SM 150 - sealing system**

Install sealing membrane as per previous item, vertical bond up to 20 cm on walls, pavements, fenders, etc.

**01.0005.****Joint profile FloorBridge® RC 20/30**

**FloorBridge® RC 20/30**, prefabricated polymer floor joint profile in carbon fiber composite technology, sandable, highly resilient and viscoelastic; supply and install (according to manufacturer specifications).

Installation and glueing FloorBridge® RC 20/30 with proven two component epoxy resin adhesive. If necessary, alignment of the joint area between the joint profile and the concrete surface with proven two component epoxy resin adhesive.

After the adhesive has hardened a diamond rotary sander will be used to sand the FloorBridge® joint profile.

Characteristics: metal-free, therefore non-corrosive

Expansion coefficient: similar to resin floors

Joint profile width: ca. 250 mm

Joint profile thickness: ca. 20 mm

Horizontal joint movement total: 25 mm (-5/+20 mm)

Sandable: max. 2 mm

Bonding adhesive: FloorBridge® Connect 01/03

Compression strength: 80 N/mm<sup>2</sup> (ONR 23303)

Bending tensile strength: 60 N/mm<sup>2</sup> (DIN EN 196-1)

Load: wheel load 6000 kg per 10 cm<sup>2</sup> bearing surface

Colour: grey

**01.0005a.****Producing a tight, friction-locked transition to the car park coating (coating flange)**

Following installation of the joint profile the coating flange of the joint profile is prepared by grinding means and vacuum cleaned dust-free. The coating system is applied to the required thickness, leaving it tight, flush and friction-locked in this transition area (coating flange) to the car park coating. No jointing sealant or anchoring grooves or the like are allowed or to be installed in this location.

**01.0005b. Contingency item:****Support pillars**

Surcharge for difficulty in support pillar area. The **FloorBridge®** joint profile is to be adapted to the shape of the support pillar.

**01.0005c. Contingency item:****FloorBridge® RC 20/30, - Surcharge for T-shaped part**

Surcharge for producing and installing a T-shaped part

**01.0005d. Contingency item:****FloorBridge® RC 20/30, - Surcharge for angle-shaped part (90° angle)**

Surcharge for producing and installing an angle-shaped part (L-shaped part)

**01.0005e. Contingency item:****FloorBridge® RC 20/30, - Surcharge for cross-shaped part**

Surcharge for producing and installing a cross-shaped part

**01.0005f. Contingency item:****FloorBridge® RC 20/30, - Surcharge for wall plate**

Surcharge for producing and installing a wall plate / skirting (ca. 20 cm high) to protect the sealing membrane brought up.

**01.0005g. Contingency item:****FloorBridge® RC 20/30, - Surcharge for socket plate**

Surcharge for producing and installing a base plate (ca. 8 cm high) to protect the sealing membrane brought up.

**01.0006****Transparent or coloured sealing**

A transparent or coloured reactive resin sealer is applied to the prepared joint profile surface. The sealer must match both, the neighbouring surface coating (necessary slip and abrasion resistance, etc.) and FloorBridge®.

It is important to ensure that the sealing is removed from the grout. The grout must be cleared in order to not restrict the maximum elongation. In general, the specifications given by the manufacturer are to be observed.