

# Specifications FloorBridge® ST 20/30

## - New construction -

### 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, exceed the relevant minimum requirements. Beyond the properties of the materials, the equivalence also consists of manufacturers' proof of quality control (ISO 9001 certificate) and environmental system (ISO 14001 certificate) as well as the buildings surveys and associated experts reports. In the case of unfilled bidder slots the 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 levels 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 meet the site requirements defined by competent planning and following substrate preparation it must show a tensile bonding strength (pull-out strength) of minimum 1,5 N/mm² and a compressive strength class acc. to DIN EN 1992-1-1 of minimum C25/30. If the substrate must be re-profiled, the re-profiling mortar must meet the site requirements, showing a minimum compressive strength of 40 N/mm². The substrates 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 values must reach a minimum of 1.5 N/mm².

#### **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 adhered to, exactly to the figures stated in the manufacturer's technical leaflets.

#### **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 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.

#### **Floor slab movements**

There must be no vertical movements of the floor slabs in the joint area. In cases, where there is a vertical "pumping" of the floor slabs in the joint areas, this must be addressed prior to the joint refurbishment by suitable means, such as doweling etc. or substrate base layer strengthening (cement grout injection or similar) or both.

#### **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®. Furthermore, there can be no vertical movement in this area.

#### **New construction**

On site recess for **FloorBridge® ST 20/30**, width: ca. 270 mm, depth: ~ 24 mm.

If water tightness is required: If a sealing membrane is installed under the joint profile, the recess must have a depth of ~ 27 mm. For coated floor areas the recess depth varies accordingly, depending on the thickness of the adjoining floor coatings.

## **Installing the joint profile: FloorBridge® ST 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.**

#### **Substrate preparation joint area**

Substrate preparation of the pre-formed recessed joint areas is carried out via grinding, chiselling, shot blasting etc. The substrate must be prepared via grinding with a diamond disc floor grinder, chiselling or shot blasting in such a way as to achieve the required tensile bonding strength of minimum 1,5 N/mm<sup>2</sup>. A vacuum cleaning device is to be allowed for. The accumulated waste is to be properly disposed of.

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

#### **Making the recess for FloorBridge®**

Separation cuts to be made on both sides about 270 mm apart with the joint in the centre. Remove the concrete between them (as well as any existing floor coverings or epoxy layers etc.) to a recess depth of approx. ~ 24 mm for FloorBridge® ST 20/30. The accumulated waste is to be properly disposed of. A vacuum cleaning device is to be allowed for. The substrate must be prepared in such a way as to reach a tensile bonding strength of at least 1.5 N/mm<sup>2</sup>. For coated floor areas the recess depth varies accordingly, depending on the thickness of the adjoining floor coatings.

If water tightness is required: If a sealing membrane is to be installed under the joint profile, the recess must be chiseled out deeper by approx. 3 mm.

### **01.0003. Contingency item**

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

If there are deeper defects (> 5 mm) in the substrate, these areas must be treated with a bonding coat of a solvent-free epoxy resin first. A solvent-free epoxy reaction resin mortar must be applied fresh on fresh onto the bonding coat. The mixing ratio and the aggregate grading are to be adapted to the respective depth of the defects to be re-profiled.

The compressive strength of the reprofiling mortar to apply must meet the site requirements and must have a minimum strength of 40 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. Contingency item water tightness**

#### **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

Composite adhesive:

epoxy resin adhesive FloorBridge® Connect 01/03/04 or PMMA-adhesive FloorBridge® Connect 20 (Note the additional charge for PMMA-adhesive Connect 20)

Membrane width:

ca. 15 cm

Elongation at break:

> 750 % (DIN EN ISO 527-3)

### **01.0004a. FloorBridge® SM 150 – Sealing System – Vertical Incline**

Sealing tape as described in previous item, application for vertical inclines up to 200 mm high at locations walls, foot path, impact protection etc.

#### 01.0005.

##### **Joint profile FloorBridge® ST 20/30**

**FloorBridge® ST 20/30**, prefabricated polymer floor joint profile in carbon fiber composite technology, sandable, highly resilient and viscoelastic; supply and install (according to manufacturer's specifications). Installation and glueing FloorBridge® ST 20/30 with proven two component epoxy resin adhesive FloorBridge® Connect 01/03/04 or PMMA-adhesive FloorBridge® Connect 20 (Note the additional charge for PMMA-adhesive Connect 20). If necessary, alignment of the joint area between the joint profile and the concrete surface with proven two component epoxy resin adhesive FloorBridge® Connect 01/03/04 or PMMA-adhesive FloorBridge® Connect 20 (Note the additional charge for PMMA-adhesive Connect 20).

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

Characteristics:	metal-free
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
Composite adhesive:	epoxy resin adhesive FloorBridge® Connect 01/03/04 or PMMA-adhesive FloorBridge® Connect 20 (Note the additional charge for PMMA-adhesive Connect 20)
Compression strength:	80 N/mm <sup>2</sup> (ONR 23303)
Colour:	grey
CE-marked according to EN 13813	
AgBB-conform	

##### **01.0005a. Contingency item**

###### **Round Columns**

Surcharge for obstacle around round columns. In the area of round columns, the FloorBridge® joint profile is adapted to the round shape accordingly.

##### **01.0005b. Contingency item**

###### **Mitre cuts**

Surcharge for making mitre cuts in areas with a change in direction.

##### **01.0005c. Contingency item**

###### **FloorBridge® ST 20/30 - Surcharge T-Shaped Part**

Surcharge for making and installing of a T-Shaped Part

##### **01.0005d. Contingency item**

###### **FloorBridge® ST 20/30 - Surcharge Angle-Shaped Part (90° Angle)**

Surcharge for making and installing of an Angle-Shaped Part (L-Shaped Part)

##### **01.0005e. Contingency item**

###### **FloorBridge® ST 20/30 - Surcharge Cross-Shaped Part**

Surcharge for making and installing of a Cross-Shaped Part

#### 01.0006.

##### **Transparent or coloured sealing**

Transparent or coloured sealing

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

Important: To prevent contamination and staining of the black expansion insert, the expansion insert must be covered with masking tape prior to the coating work. For example: use FloorBridge® protective fail.

In general, the specifications given by the material manufacturers have to be observed and adhered to.