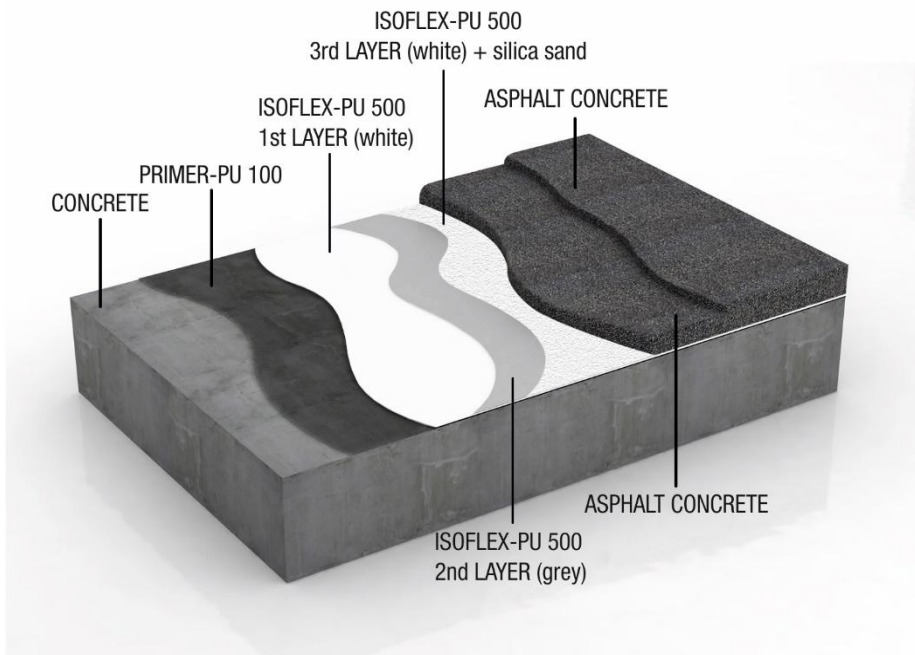


## WATERPROOFING OF CONCRETE BRIDGE DECKS



### Related Materials

#### **ISOFLEX-PU 500**

One-component, polyurethane, waterproofing liquid membrane

#### **PRIMER-PU 100**

One-component polyurethane primer

#### **PRIMER-PU 140**

Two-component polyurethane primer for surfaces with high moisture content

#### **DUROCRET-PLUS**

Polymer-modified, fiber-reinforced, repairing cement mortar

#### **FLEX PU-30 S/FLEX PU-2K**

Polyurethane sealants

#### **ACCELERATOR 5000**

Special set accelerator for ISOFLEX-PU 500

### **APPLICATION**

#### **Substrate preparation**

The substrate must be dry (moisture content <4%) and free from loose particles, dust, grease, etc.

Local restorations or repairs of the substrate (concrete, cement mortar etc) are carried out with the polymer-modified, fiber-reinforced cement mortar (PCC R3 type), DUROCRET-PLUS.

Any substrate cracks must be sealed with the polyurethane sealants FLEX PU-30 S or FLEX PU-2K.

#### **Surface priming**

The one-component, polyurethane primer PRIMER-PU 100 is applied on the clean, dry concrete surface (moisture content <4%), as long as the materials that may have been used for smoothing the substrate have dried.

The primer is evenly applied on the whole surface with a brush, roller or by spraying.

Consumption of polyurethane primer PRIMER-PU 100: 200-300 g/m<sup>2</sup>.

In case the substrate has moisture content > 4%, the PRIMER-PU 140 which is a polyurethane, two-component primer for surfaces with high moisture content is applied instead of the polyurethane primer PRIMER-PU 100.

Consumption of PRIMER-PU 140: 200-250 g/m<sup>2</sup>.

### **Application of the polyurethane, liquid waterproofing membrane ISOFLEX-PU 500**

The polyurethane, liquid waterproofing membrane ISOFLEX-PU 500 is applied by roller or airless spray in three layers. The first layer is applied 2 to 3 hours after application of the polyurethane primer PRIMER-PU 100 and while the surface is still slightly tacky. The second layer is applied crosswise to the first one in different color for control purpose, after 8 to 24 hours, depending on the weather conditions. After 8 to 24 hours the third layer is being applied and while the layer is still fresh silica sand (0.4-0.8mm) is broadcasted in order to create a final anti-slip surface.

ISOFLEX-PU 500 could be applied also with the addition of ACCELERATOR 5000. ACCELERATOR 5000 is a special set accelerator for ISOFLEX-PU 500 that enables its application at low temperatures or in thicker layers. It also increases the thixotropy and mechanical strength of ISOFLEX-PU 500.

Total consumption of polyurethane, liquid waterproofing membrane, ISOFLEX-PU 500: 2.3-2.5 kg/m<sup>2</sup>, depending on the substrate.

After 7 days the asphalt concrete could be applied above the hardened membrane ISOFLEX PU 500.

The hardened polyurethane liquid membrane ISOFLEX-PU 500 offers an appropriate substrate for the adhesion of the asphalt concrete. Asphaltic solutions with petrol etc should be avoided.

### **NOTES**

- ISOFLEX-PU 500 may be applied when the ambient temperature is 5°C and rising, and the temperature of the substrate is a minimum of 3 degrees above the dew point. The maximum application temperature is approximately 35°C. Low temperatures retard curing while high temperature accelerates curing. High values of humidity may affect the final finish of the membrane.
- Maximum consumption of ISOFLEX-PU 500 per layer should not exceed 750 g/m<sup>2</sup>. With the addition of ACCELERATOR 5000 each layer should not exceed the 1.25 kg/ m<sup>2</sup>.
- Possible creeping of the asphalt concrete normally is due to the quality and characteristics of asphalt (softening point) and is not relative to the adhesion of the polyurethane membrane.
- Consult the instructions for safe use and precautions written on the packaging.
- Consult the technical data sheets of the products for the right application.