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## PC<sup>®</sup> CARBOCOMP SU

### Unidirectional carbon fibre laminates for the reinforcement of structures

#### 1. Description

Epoxy carbon fibre laminate composed of unidirectional orientated carbon fibres.

Fibre content:	65 volume %
Available widths:	50, 60, 80, 100, 120 mm
Effective thickness:	1,2 mm

#### 2. Application

Reinforcement of beams, floors, walls and columns made of concrete, wood or steel. Strengthening of bridges and buildings, for example in the following cases:

- Repair of the original bearing capacity, for example after fire or corrosion of the rebars.
- Local strengthening of construction elements, when making openings in floor plates or walls.
- To increase the load bearing capacity.
- To repair construction errors.

#### 3. Properties

Tensile strength average value min. value	2400MPa >2200MPa
Modulus of elasticity average. value min. value	165GPa >160GPa
Elongation min. value	>1,33%
Density	1,6 g/cm <sup>3</sup>

#### 4. Advantages

- High tensile strength and stiffness
- Low self-weight
- Very low creep
- Flexible in use
- Large lengths can be installed jointless
- Excellent corrosion, acid and alkali resistance
- High durability
- Small thermal expansion
- Requires little to no maintenance



- The finish with paint or plaster demands no special requirements
- The laminate is protected by a peel ply that has to be removed prior to application. Thanks to this no roughening, cleaning or degreasing is necessary.

## 5. Processing

- Concrete, steel, wood: the surface must be cleaned, prepared and smoothed.
  - Concrete: the surface has to be free of grease, cement and dust. Repair unevenness and weak zones (the adhesion strength should, if possible, be superior to 1,5 N/mm<sup>2</sup>). Smoothen the surface, remove all dust and dry (<3%).
  - Metal: degrease and remove all rust, high pressure cleaning is preferred.
- Remove the peel ply in the longitudinal direction towards the end of the laminate and at an <45° angle.
- Apply the epoxy glue PC<sup>®</sup> 5800/BL on the surface of the laminate that has to be glued: mix the components of PC<sup>®</sup> 5800/BL, apply on the laminate with a spatula and make sure that no air is being entrapped.
  - Consumption: ± 3 to 5 kg/m<sup>2</sup> depending on the roughness of the surface.
  - Pot life: ca 30 min at 20°C
  - After positioning the laminate on the surface, it must be pressed until a minimal quantity of glue comes out from underneath the laminate.
- Remove the excess glue with PC<sup>®</sup> 5900.

## 6. Dimensions and shelf life

Length: 100 m  
Shelf life: unlimited

## 7. Precautions and safety requirements

- **PC<sup>®</sup> Carbocomp:**  
The laminate can have sharp edges, so wear protective gloves. Keep it away from electricity.
- Epoxy glue: see technical data sheet PC<sup>®</sup> 5800/BL
- Cleaner: see technical data sheet PC<sup>®</sup> 5900