

PRODUCT DATA

CARBOCOMP SU UNIDIRECTIONAL CARBON FIBRE LAMINATES

PRODUCT DESCRIPTION

CarboComp SU is an epoxy carbon fibre laminate composed of unidirectional orientated carbon fibres for reinforcement of structures.

- Fibre content: 65% volume
- Available widths: 50, 60, 80, 100, 120 mm
- Effective thickness: 1.2 mm

APPLICATION

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

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

PROPERTIES

Tensile Strength	
• Average Value	2,400 MPa
• Minimum Value	>2,200 MPa
Modulus of Elasticity	
• Average Value	165 GPa
• Minimum Value	>160 GPa
Elongation	
• Average Value	>133%
• Density	1.6 g/cm ³
Density	<ul style="list-style-type: none"> • Carbon Fibre: Approx. 1.6 g/cm³ • Manufactured Laminate: Approx. 2.0 g/cm³

ADVANTAGES

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

- Finishing with paint, plaster or other finishes demands no special requirements.
- Laminate rolls are plastic wrapped at time of manufacture to protect bonding surfaces during transit and site storage, ensuring ease of placement.

PROCESSING

Concrete, steel and wood: Surfaces shall be cleaned, prepared and smooth prior to application.

Concrete:

- The surface shall be free of grease, cement, dust and all deleterious matter.
- Repair any unevenness, damaged or weak areas prior to application (minimum adhesion should exceed 1.5 N/mm²). Smooth the surface, remove all dust and ensure moisture content at the surface to be bonded is <3%.

Metal:

- Degrease and remove all rust, high pressure cleaning is preferred.

Laminate:

- Mix the components of CarboComp 5800/BL and apply onto the laminate with a spatula avoiding air entrapment.
- Consumption: See Table I for typical consumption.
- Pot life: Circa 40 minutes at 20°C.
- After positioning the laminate on the surface, it must be pressed firmly into place until a minimal quantity of adhesive is extruded from the sides.
- Remove excess adhesive with CarboComp 5900 if required.

DIMENSIONS AND SHELF LIFE

- Length: 100m, 50m
- Shelf Life: Unlimited

PRECAUTIONS & SAFETY REQUIREMENTS

- CarboComp laminates can have sharp edges, gloves should be worn when handling.
- Keep away from electricity.
- Epoxy glue: See technical data sheet for CarboComp 5800/BL.
- Cleaner: See technical data sheet for CarboComp 5900.

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NOTES

- Safety Data Sheets for CarboComp SU products are available upon request.
- A staff of Technical Service Engineers is available to assist with installation or to answer questions related to CarboComp SU products.
- Requests for technical service or literature can be made through local sales representatives and offices or corporate offices located worldwide.

TABLE I

WIDTH OF CARBOCOMP LAMINATE (mm)	TYPICAL CONSUMPTION RANGE (kg/m Length of Plate)
50	0.25 - 0.35
60	0.30 - 0.40
80	0.40 - 0.55
100	0.55 - 0.80
120	0.65 - 1.00
150	0.85 - 1.25

NOTE: These are typical values

Important:

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