

S&P Laminates CFK

Prefabricated carbon fibre plates

07/07

- **Technical data of S&P Laminates CFK**

Type: **S&P Laminates CFK 150 / 2000**Type: **S&P Laminates CFK 200 / 2000**

Surface-applied laminates:

Laminate type	Cross section	Tensile strength at elongation 0.6 %	Tensile strength at elongation 0.8 %
150/2000 Modulus of elasticity: >165'000 N/mm ² (average)	[mm ²]	Theoretical tensile strength for the design: 1000 N/mm²	Theoretical tensile strength for the design: 1300 N/mm²
50 / 1.2	60	60.0 kN	78.0 kN
50 / 1.4	70	70.0 kN	91.0 kN
60 / 1.4	84	84.0 kN	109.2 kN
80 / 1.2	96	96.0 kN	124.8 kN
80 / 1.4	112	112.0 kN	145.6 kN
90 / 1.4	126	126.0 kN	163.8 kN
100 / 1.2	120	120.0 kN	156.0 kN
100 / 1.4	140	140.0 kN	182.0 kN
120 / 1.2	144	144.0 kN	187.2 kN
120 / 1.4	168	168.0 kN	218.4 kN
200/2000 Modulus of elasticity: >210'000 N/mm ² (average)	[mm ²]	Theoretical tensile strength for the design: 1250 N/mm²	Theoretical tensile strength for the design: 1650 N/mm²
50 / 1.4	70	87.5 kN	115.5 kN
60 / 1.4	84	105.0 kN	138.6 kN
80 / 1.4	112	140.0 kN	184.8 kN
90 / 1.4	126	157.5 kN	207.9 kN
100 / 1.4	140	175.0 kN	231.0 kN
120 / 1.4	168	210.0 kN	277.2 kN

Slot-applied laminates:

Laminate type	Cross section	Recommended tensile strength for the design:
150/2000 Modulus of elasticity: >165 kN/mm ² (average)	[mm ²]	Recommended tensile strength for the design: 1650 N/mm²
10 / 1.4	14	23.1 kN
20 / 1.4 *	28	46.2 kN
200/2000 Modulus of elasticity: >210 kN/mm ² (average)	[mm ²]	Recommended tensile strength for the design: 2050 N/mm²
10 / 1.4 *	14	28.7 kN
20 / 1.4 *	28	57.4 kN

*) Upon request, only larger quantities!

- **Delivery**

Rolls of 100 m, 150 m or cut to size. An unwinding reel is available upon request.
Special dimensions upon request.

- **Application**

S&P Laminates CFK are used as externally bonded reinforcement for flexural strengthening of load-bearing elements made of RC-structures, wood and natural stone.

- **Application areas**

Retrofitting of RC-structures to new requirements:

- Modifications in the static system
- Increase of working load

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Enhancement of the performance capability:

- Reduction of deflection
- Absorbing of vibrations
- Seismic retrofitting

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Repairs to defective RC-structures:

- Damage caused by corrosion
- Accidents, e.g. fire, impact, explosion, etc.
- Planning and execution errors

- **Advantages**

- Low dead weight
- Low application thickness
- Economical application without lifting gear or placing and support devices
- Very high strength
- High modulus of elasticity
- Excellent fatigue behaviour
- Corrosion resistance
- Can be coated with paints

- Special CFK laminates, e.g. with a modulus of elasticity of $300,000 \text{ N/mm}^2$, are available upon request. However, the application of these high modulus laminates is not economical as the utilisation of their tensile strength is only marginal.

As of all other technical indications and information provided by us, the only purpose of this data sheet is to describe the nature of this product, as well as its possible applications and fields of use. However, it does not guarantee certain properties of this product or its suitability for a determined purpose of application; furthermore, the directions for use given in this data sheet are not complete. Since this data sheet is subject to modification, it is the duty of our clients to ensure that they refer to the latest version. The updated data sheets can be obtained at all times from all our locations. In addition, the current general terms of business are applicable.