

Technical data

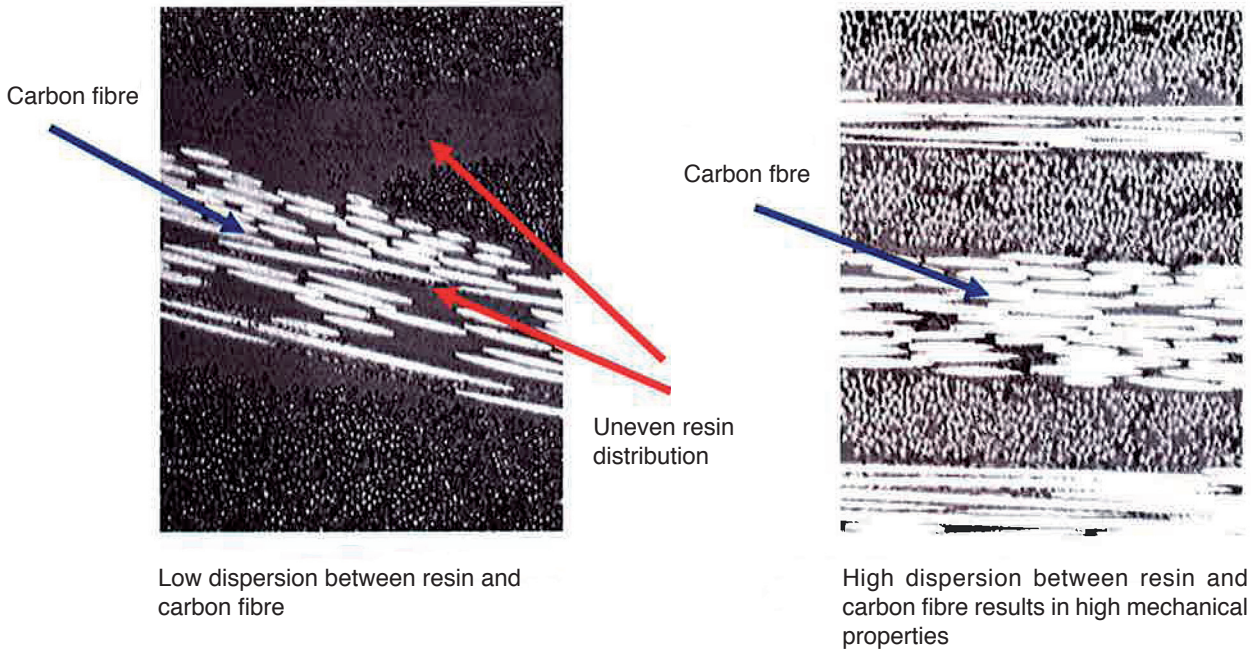
SAMURAI carbon fabric SY-1k 61 g/m²

Description

Innovative carbon fabric made from spread 1k yarn. Compared to classical 1k-fabrics the following advantages appear:

- Improved flexural strength
- Improved flexural modulus
- Improved interlaminar shear strength (ILSS)
- Improved surface quality

Low intersectional height of woven fabric



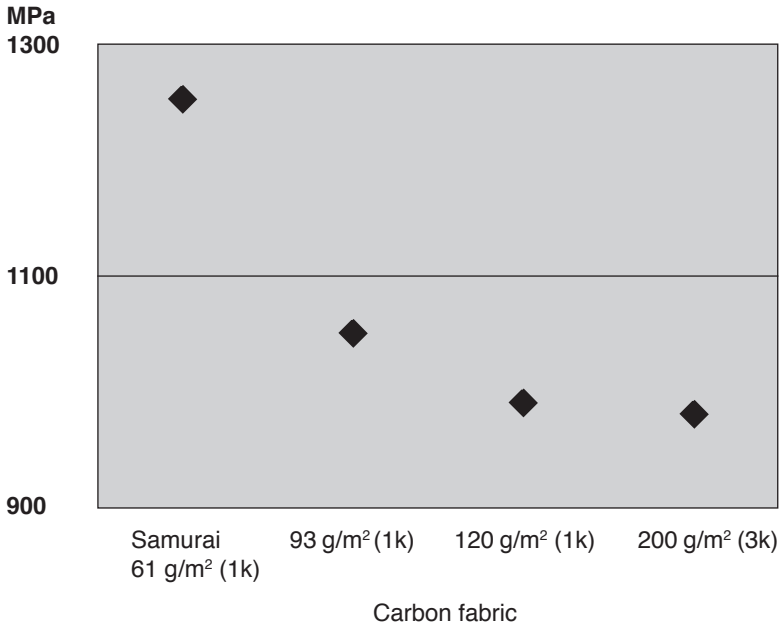
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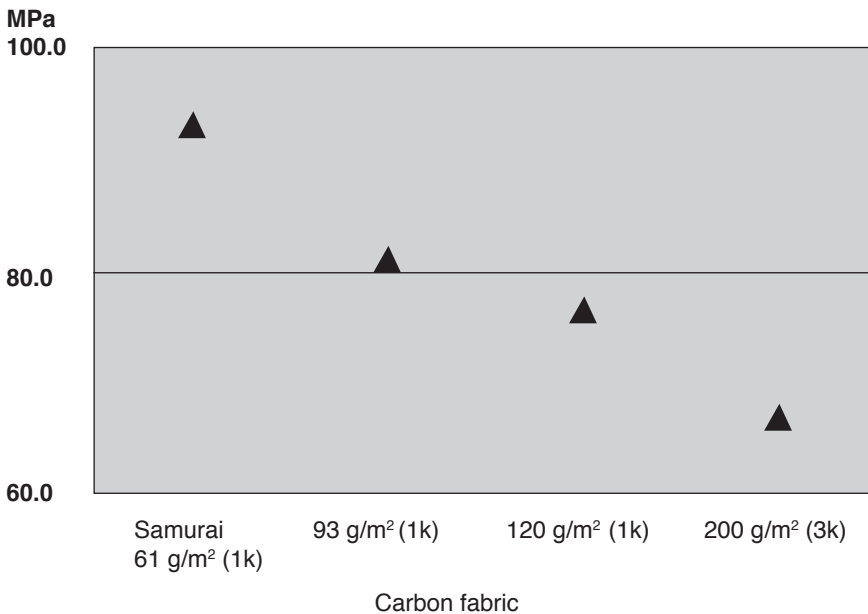


Comparison of mechanical properties

Flexural strength



ILSS



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Test results with SAMURAI carbon fabric SY-1k 61 g/m² (Reference data)

Comparison with 1k fabrics (Plain)

	Unit	Samurai 61 g/m ²	93 g/m ²	120 g/m ²
Weight	g/m ²	61	93	120
Resin content	%	40	39	40
Test specimen thickness	mm	1.04/16 ply	1.00/10 ply	1.32/10 ply
Vf	%	52	52	52
Flexural strength*1	MPa	≥1250*	1050	990
Flexural modulus *1	GPa	63.3	63.0	59.9
ILSS	MPa	93.0	80.6	76.2

*1 Actual data

Comparison with 3k fabrics (Plain)

	Unit	Samurai 61 g/m ²	200 g/m ²
Weight	g/m ²	61	200
Resin content	%	40	39
Test specimen thickness	mm	2.39/39 ply	2.3/12 ply
Vf	%	54	58
Flexural strength*1	MPa	1240	980
Flexural modulus *1	GPa	69.2	66.6
ILSS	MPa	82.4	70.3

*1 Normalized VF 60%

Samurai carbon fabric SY-1k 61 g/m², 100 cm wide, rolls with 0,5 m (190 300-0), 1 m (190 300-1), 2 m (190 300-2), 3 m (190 300-3), 5 m (190 300-5), 10 m (190 300-6), 20 m (190 300-7), 50 m (190 300-8), 100 m (190 300-8)