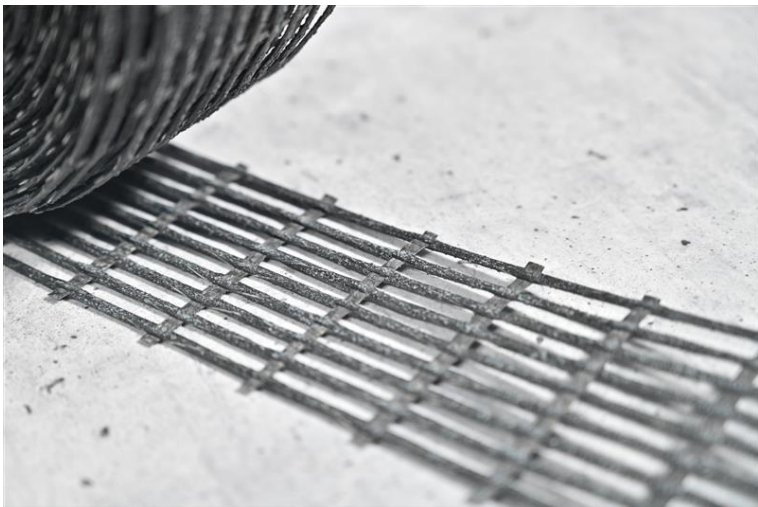


TECHNICAL DATA SHEET

solidian
Briksy Carbon



Specifications		Unit	Value	Tolerance	Standard
Fiber material warp	Carbon	-	-	-	-
Fiber material weft	Glass fiber	-	-	-	-
Impregnation material	Styrene-butadiene + Filler*	%	≥16	-	ISO 1887
Basis weight	-	g/m ²	620	± 8%	ISO 3374
Shape	Roll	-	-	-	-
Width	-	mm	40	± 5 mm	ISO 22198
			50	± 5 mm	
			75	± 10 mm	
			100	± 10 mm	
			150	± 10 mm	
Length	-	m	30, 50	-	ISO 22198
Fiber cross-section	Warp	mm ²	1,81	-	calculated
	Weft	mm ²	0,92	-	calculated
Mesh size (middle)	Warp	mm	8,3	-	Internal method RUP MOO KEL
	Weft	mm	33,3	-	Internal method RUP MOO KEL
Breaking Force Average value	Warp	kN/m	406	-	ISO 10406-1
	Weft	kN/m	31	-	ISO 10406-1
Breaking Force Characteristic value	Warp	kN/m	≥ 360	-	ISO 10406-1
	Weft	kN/m	≥ 25	-	ISO 10406-1

Specifications		Unit	Value	Tolerance	Standard
Tensile Strength regarding fiber cross-sectional area Average value	Warp	MPa	1.869	-	ISO 10406-1
	Weft	MPa	1.146	-	ISO 10406-1
Tensile Strength regarding fiber cross-sectional area Characteristic value	Warp	MPa	≥ 1.657	-	ISO 10406-1
	Weft	MPa	≥ 908	-	ISO 10406-1
Ductility category	-	-	low	-	EN 845-3 + A1, Table 4

Specifications		Unit	Width of product	Number of cords per width	Value	Standard
Breaking Force Average value	Warp	kN	40 mm	5	17	Calculated based on product width
			50 mm	6	20	
			75 mm	9	30	
			100 mm	12	40	
			150 mm	18	60	

Bond strength – EN 846-2

Type of masonry elements and mortar	Air content	Flexural tensile strength (28 days)	Compressive strength (28 days)
Normal purpose mortar	9,5 %	1,8 MPa	6,6 MPa
Solid clay bricks 120 x 250 x 65 mm	-	-	43,4 MPa
Combinations	Embedment length	Characteristic value of bond strength Deformation of 1 mm	Characteristic value of bond strength F _{max}
Solid clay bricks + normal purpose mortar + solidian Briksy Carbon 40	250 mm	8,3 kN	9,83 kN
Solid clay bricks + normal purpose mortar + solidian Briksy Carbon 75	250 mm	13,21 kN	17,84 kN

Information

1. Concrete components

1.1. Textile concrete components are currently not subject to any building authority approvals (standards, guidelines etc.). In the case of structural building sites, building authorities must be consulted with test stators, experts etc. and country-specific regulations must be observed (e.g. approvals of specific cases).

1.2. It is recommended to check these values in the concrete component (on site the prefabricated concrete plant) in order to detect individual influences from the concrete mix.

1.3. Consider working temperatures and resistance, installation only by trained staff, use suitable concrete mixtures, wear safety gloves and goggles. Please, consider additional protective measures!

1.4. The tensile strength was derived from experimental investigations based on roving tests. The values provided here represent short-term static tensile strength. At room temperature (20°C); the influences of durability, long-term loads, cyclic stresses etc. are not taken into consideration.

1.5. Since non-metallic reinforcements are not regulated in local standards or guidelines in most countries, for structural members building authorities, structural engineers, experts, etc. Must be involved and local regulations must be observed (e.g. approval in individual cases).

2. Certifications

2.1. Our Management System is in accordance with the requirements of the management system standards ISO 9001:2015 and ISO 14001:2015.

3. Disclaimer

3.1. We believe this information to be reliable, but do not guarantee its applicability to the user's process or assume any liability arising out of its use or performance. The user, by accepting the products described herein, agrees to be responsible for thoroughly testing any application to determine its suitability before committing to production. Because of numerous factors affecting results, we make no warranty of any kind, express or implied, including those of merchantability and fitness for a particular purpose. Kindly note that under certain conditions the properties can be affected to a considerable extent by the machining or processing. Application, use, and processing of products is effected beyond our possible control, and accordingly is the sole and exclusive responsibility of recipients. Statements in this data sheet shall not be construed as representations of warranties or as inducements to infringe any patent or violate any law, safety code or insurance regulation.

3.2. Subject to change without notice. When a new technical data sheet is published, all previous technical data sheets are no longer valid.

* Additional filler for superior bonding.