



TECHNICAL DATA SHEET

solidian ANTISEISMIC Grid 49





Specifications		Unit	Value		Tolerance	Standard
Fiber material	AR-Glass	-		-	-	-
Impregnation material	Epoxy Resin	%	≥	25	-	ISO 1887:2013
Shape	Roll	-		-	-	-
Width	-	cm	1	20	±1%	ISO 22198:2006
Length	-	m	50		-	ISO 22198:2006
Basis weight	-	g/m²	385		± 7%	ISO 3374:2000
			Warp	Weft		
Cross sectional area per unit width		mm²/m	49,11	48,00	-	Calculation
Fiber cross section		mm ²	1,85	1,85	-	Calculation
Composite cross section		mm ²	3,80	5,70	± 15%	ISO 10406-1:2015
Mesh size (middle)		mm	37,6	38,4	± 5	Internal method RUP MOO KEL
Tensile strength (Average Value)		MPa	945	781	-	EAD 340392-00-0104 ETA-23-0383
Tensile strength (Characteristic Value)		MPa	894	725	-	EAD 340392-00-0104 ETA-23-0383
Breaking force (Average Value)		kN/m	103	99	-	EAD 340392-00-0104
Breaking force (Minimum Value)		kN/m	82	79	-	EAD 340392-00-0104
E-Modulus (Average Value)		GPa	32,9	28,4	-	EAD 340392-00-0104 ETA-23-0383
E-Modulus (Characteristic Value)		GPa	31,5	27,7	-	EAD 340392-00-0104 ETA-23-0383
Ultimate strain (Average Value)		%	2,87	2,75	-	EAD 340392-00-0104 ETA-23-0383
Glass transition temperature		°C	≥ 100		-	ISO 11357-2:2013

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Specifications after conditioning	Unit	Value		Standard
		Warp	Weft	
Alkali resistance Retained tensile strength	MPa	872	735	- - EAD 340392-00-0104 ETA-23-0383
Alkali resistance Retained E modulus	GPa	33,6	29,4	
Saltwater resistance Retained tensile strength	MPa	840	694	
Saltwater resistance Retained E modulus	GPa	33,2	29,1	
Water resistance Retained tensile strength	MPa	763	650	
Water resistance Retained E modulus	GPa	33,5	29,4	
Freezing and thawing resistance Retained tensile strength	MPa	824	641	
Freezing and thawing resistance Retained E modulus	GPa	34,0	29,3	

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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 countryspecific 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.
- 4. Storage and handling conditions

The product should be stored in a dry and cool place, protected from the rain and direct sunlight. To prevent potential damage of the composite, it is crucial to handle with the product carefully during storage and transportation.

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