



TECHNICAL DATA SHEET



Designation - Style: **Style 449-5 Carbon Fabric for Aerospace Applications**
Aircraft Specification: **DIN 65147 - WL-Blatt 8.3515.80 (German Material Data Sheet and Aircraft Specification)**
Weight: **193 g/m²**
Weave: **Plain Weave**

Technical Data - Fabric	Standard	Unit	Target	+/-	Tolerance
Weight	DIIN ISO 12127	g/m ²	193	+/-	8
Dry Weight	DIN EN ISO 3344	g/m ²	193	+/-	8
Setting	Warp	DIN EN 1049 T2	thr./cm	4,9	0,2
		Weft	thr./cm	4,8	0,2
Moisture content	DIN EN ISO 3344	%	0,5	<	-
Thickness (loomstate fabric) ¹⁾	DIN ISO 5084	mm	0,29	+/-	0,03
Thickness (within the laminate) ^{1), 2)}		mm	0,22		-
Width	DIN EN 1773	cm	as ordered	+/-	1

¹⁾ approximate value, not for release

²⁾ Thickness of fabric layer calculated out of laminate thickness acc. to DIN 65071-2 at 50% fvc

Technical Data - Fiber in warp and weft Acc. to WL 8.3611	Standard	Unit	Specified Fiber	+/-	Tolerance
Density	DIN 29965	g/cm ³	1,8	+/-	0,05
Linear Density (Lot mean value)	DIN 29965	tex	200	+/-	4
Filament Diameter	DIN 53811	µm	7	+/-	0,4
Sizing (to be specified during qualification)	EN ISO 10548	%	1,25	+/-	0,15
Tensile Strength (Lot mean value)	DIN 29965	MPa	3750 min		-
Tensile Modulus (Lot mean value)	DIN 29965	GPa	238	+/-	4

Laminate mechanical properties				
Laminate manufacturing		Press		
Resin / Curing / Post Curing		Acc. to WL 5.3200		
Mechanical Property	Standard	Unit	Typical Test Values ^{3),4)}	Specified min. Mean Value acc. to WL-Blatt ^{3),4)}
Tensile Strength / Modulus [0°]	EN-2561-B	MPa / GPa	730 / 51	600 / 50
Compression Strength / Modulus [0°]	EN-2850-A	MPa / GPa	550 / 45	420 / --
Flexural Strength / Modulus [0°]	EN-2562	MPa / GPa	--	--
ILSS [0°]	EN 2563	MPa	50	--

³⁾ Testing at R.T. ⁴⁾ normalized to 50% FVC

Date: 28.03.2018	Version V1.1	This data sheet does not include revision service
------------------	--------------	---

