

Designation - Style: **Style 450-5 Carbon Fabric for Aerospace Applications**
Aircraft Specification: **DIN 65147 - WL-Blatt 8.3509.80 (German Material Data Sheet and Aircraft Specification)**
Weight / Gewicht: **204 g/m²** **Weave / Bindung:** **Plain Weave**

Technical Data - Fabric	Standard	Unit	Target	+/-	Tolerance
Weight / Gewicht	DIN ISO 12127	g/m ²	204	+/-	8
Dry Weight / Trockengewicht	DIN EN ISO 3344	g/m ²	204	+/-	8
Setting / Einstellung Warp/Kette Weft/Schuss	DIN EN 1049 T2	thr./cm thr./cm	5,0 5,0	+/- +/-	0,2 0,2
Moisture content / Feuchtigkeitsgehalt	DIN EN ISO 3344	%	0,5	<	-
Thickness (loomstate fabric) ¹⁾ / Dicke (Rohgewebe) ¹⁾	DIN ISO 5084	mm	0,37	+/-	-
Thickness (within the laminate) ^{1), 2)} / Dicke (im Laminat) ^{1), 2)}		mm	0,26	+/-	-
Width / Breite	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 / Dichte	DIN 29965	g/cm ³	1,8	+/-	0,05
Linear Density (Lot mean value) / Lineare Dichte (Lot Mittelwert)	DIN 29965	tex	200	+/-	4
Filament Diameter / Filamentdurchmesser	DIN 53811	µm	7	+/-	0,4
Sizing (to be specified during qualification) / Schlichtegehalt	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	725 / 50	--	
ILSS [0°]	EN 2563	MPa	50	45 ⁵⁾	

³⁾ Testing at R.T. ⁴⁾ normalized to 50% FVC ⁵⁾ acc. to RHV - LBA Certification & Material Qualification for Light Aircraft

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