

**Designation - Style:** **Style 452-5 Carbon Fabric for Aerospace Applications**  
**Aircraft Specification:** **DIN 65147 - WL-Blatt 8.3520.80 (German Material Data Sheet and Aircraft Specification)**  
**Weight / Gewicht:** **204 g/m<sup>2</sup>**      **Weave / Bindung:** **2/2 Twill**

Technical Data - Fabric	Standard	Unit	Target	+/-	Tolerance
Weight / Gewicht	DIN ISO 12127	g/m <sup>2</sup>	204	+/-	8
Dry Weight / Trockengewicht	DIN EN ISO 3344	g/m <sup>2</sup>	204	+/-	8
Setting / Einstellung Warp/Kette Weft/Schuss	DIN EN 1049 T2	thr./cm	5,0	+/-	0,2
		thr./cm	5,0	+/-	0,2
Moisture content / Feuchtigkeitsgehalt	DIN EN ISO 3344	%	0,5	<	-
Thickness (loomstate fabric) <sup>1)</sup> Dicke ( Rohgewebe) <sup>1)</sup>	DIN ISO 5084	mm	0,38	+/-	-
Thickness (within the laminate) <sup>1), 2)</sup> Dicke (im Laminat) <sup>1), 2)</sup>		mm	0,26	+/-	-
Width / Breite	DIN EN 1773	cm	as ordered	+/-	1

<sup>1)</sup> approximate value, not for release

<sup>2)</sup> 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 <sup>3</sup>	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 <sup>3),4)</sup>	Specified min. Mean Value acc. to WL-Blatt <sup>3),4)</sup>	
Tensile Strength / Modulus [0°]	EN-2561-B	MPa / GPa	740 / 57	660 / 55	
Compression Strength / Modulus [0°]	EN-2850-A	MPa / GPa	531 / 50	460 / --	
Flexural Strength / Modulus [0°]	EN-2562	MPa / GPa	862 / 55	--	
ILSS [0°]	EN 2563	MPa	61	45 <sup>5)</sup>	

<sup>3)</sup> Testing at R.T.

<sup>4)</sup> normalized to 50% FVC

<sup>5)</sup> acc. to RHV - LBA Certification & Material Qualification for Light Aircraft

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