



## AIRVOLT LAMINATE 1C - 180B

AIRVOLT LAMINATE 1C - 180B is a high pressure composite material based on a glass fabric and a modified phenolic resin system with two layers of Tedlar protective film for aircraft applications and due to its "low-heat-release"-properties it is especially suitable for aircraft interiors (e.g. cargo linings).

**CONSTRUCTION:** phenolic-glass-prepreg (DAN 407-07 / DAN 1003.1)

fabric:	US Style	7781
	weight	296 g/m <sup>2</sup>
	weave	8 H satin
	finish	A 1100
matrix:	modified phenolic-formaldehyde resin	
Tedlar:	shell white	37,5 µm

**PROPERTIES:**

thickness	1,80 ± 0,18 mm	(0,071 ± 0,007 in)
total weight	3100 ± 150 g/m <sup>2</sup>	(0,64 ± 0,03 lb/ft <sup>2</sup> )
water absorption (DIN 53495)	≤ 0,5 %	

**flexural properties at 23°C (ISO 178):**

flexural strength (warp direction)	≥ 450 MPa	(≥ 65000 psi)
flexural modulus (warp direction)	≥ 15000 MPa	(≥ 2,15*10 <sup>9</sup> psi)
flexural strength (weft direction)	≥ 400 MPa	(≥ 58000 psi)
flexural modulus (weft direction)	≥ 14000 MPa	(≥ 2,00*10 <sup>9</sup> psi)

**tensile properties at 23°C (ISO 3268):**

tensile strength (warp direction)	≥ 330 MPa	(≥ 47500 psi)
tensile strength (weft direction)	≥ 280 MPa	(≥ 40000 psi)

**flammability properties (ATS 1000.001 / FAR 25.853):**

burn length (60 sec)	≤ 100 mm	(≤ 4 in)
flame time	≤ 10 sec	
drip flame time	no drip	
smoke density flaming Ds4	≤ 10	
average peak heat release	≤ 40 kW/m <sup>2</sup>	
average total heat release	≤ 40 kW.min/m <sup>2</sup>	

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