

AZDEL™ R451-B01

Polypropylene

Azdel, Inc.

Message:

AZDEL R451-B01 is a glass mat thermoplastic laminate based upon a combination of random oriented continuous fiber mat contained within polypropylene resin matrix. This composite material features high flow properties and a generally homogeneous fiber distribution. This material is typically used for standard semi-structural applications where high stiffness and impact are desired.

General Information			
Filler / Reinforcement	Long glass fiber, 45% filler by weight		
Appearance	Black		
Forms	Sheet		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.23	g/cm ³	ASTM D792
Molding Shrinkage - Flow	0.10 - 0.30	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	6920	MPa	ISO 527-2
Tensile Stress (Yield)	140	MPa	ISO 527-2
Tensile Strain (Break)	2.4	%	ISO 527-2
Flexural Modulus	7050	MPa	ISO 178
Flexural Stress	120	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Instrumented Dart Impact			ASTM D3763
4.00 mm, Energy at Peak Load	16.3	J	ASTM D3763
4.00 mm, Total Energy	31.2	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	159	°C	ASTM D648
CLTE - Flow (-40 to 121°C)	2.9E-5	cm/cm/°C	ASTM D696
Additional Information			

Basis Weight, Internal Test Method: 0.93 lbs/ft²Filler Content by Weight(ashing), Internal Test Method: 45 %Multi-axial Impact Peak Force, ASTM D3763, 4mm: 940 lbsNotched Izod Impact, ISO 180, 23°C, 4mm: 1025 J/mPoissons Ratio, ISO 527: 0.37Sheet Thickness, Internal Test Method: 145 milsSpecific Gravity, ASTM D792, Laminated: 1.23Specific Gravity, ASTM D792, Molded: 1.27

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Recommended distributors for this material

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