## AZDEL™ U421-B01 (Longitudinal)

Polypropylene Alloy

Azdel, Inc.

## Message:

Azdel U421-B01 (Longitudinal) is a glass mat thermoplastic laminate based upon a combination of random orientated continuous fiber and orientated fiber mat contained with polypropylene resin matrix. This composite material exhibits highly orientated material properties in the longitudinal direction of the orientated glass fibers. This material is typically used in semi-structural applications where High material properties in one direction are desired, such as automotive bumper beams.

General Information			
Uses	Application in Automobile Fiel	d	
Appearance	Black		
Forms	Particle		
Physical	Nominal Value	Unit	Test Method
Molding Shrinkage - Flow	0.10 - 0.30	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	10100	MPa	ISO 527-2
Tensile Stress (Yield)	80.0	MPa	ISO 527-2
Tensile Strain (Break)	2.5	%	ISO 527-2
Flexural Modulus	7690	MPa	ISO 178
Flexural Stress	260	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Instrumented Dart Impact			ASTM D3763
4.00 mm, Energy At Peak Force	38.0	J	ASTM D3763
4.00 mm, Total Energy	58.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	158	°C	ASTM D648
Flammability	Nominal Value	Unit	Test Method
Burning Rate	4.6	mm/min	ISO 3795
Additional Information			

Filler Content by Weight, Internal Test Method, Ashing: 42%Sheet Thickness, Internal Test Method: 3.9 mmBasis Weight, Internal Test Method, Mass per unit area: 4.7 kg/m²Multi-axial Impact, ASTM D3763 Test Method, 4mm, Max Load: 700kgSpecific Gravity, ASTM D792 Test Method, Laminate: 1.21 sp gr 23/23°CSpecific Gravity, ASTM D792 Test Method, Molded: 1.21 sp gr 23/23°CCoefficient of Thermal Expansion, ASTM E831 Test Method, -40 to 120°C ( -40 to 250°F): 37 ppm/°CNotched Izod Impact Strength, ISO 180 Test Method, 23°C, 4.0mm: 1650 J/mPoission's Ratio, ISO 527 Test Method: 0.377

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## Recommended distributors for this material

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