Niche Polymer

PoliXL™

PoliXL™ PA6GF33N

Nylon 6, 33% Fiberglass Reinforced, Natural, Heat Stabilized

Physical	DAM	Conditioned	Test Method
Specific Gravity, g/cc	1.4	-	D792
Mold Shrinkage, %			D955
Parallel: 23 °C	0.2 - 0.4	-	
Perpendicular :23°C	0.5 - 0.7	-	
Water Absorption, %			D570
Equilibrium, 23 °C, 50% RH	1.8	-	
Ash (Glass-fiber), %	33	-	D2584

Mechanical	DAM	Conditioned	Test Method
Tensile Modulus, psi (MPa)	1,350,000 (9,310)	1,020,000 (7,000)	ISO 527
Tensile Strength (Break), psi (MPa)	24,500 (169)	14,500 (100)	ISO 527
Tensile Strain (Break), %	5	10	ISO 527
Flexural Modulus, psi (MPa)	1,250,000 (8,630)	1,020,000 (7,000)	ISO 178
Flex Strength, psi (MPa)	35,000 (241)	-	ISO 178

Impact	DAM	Conditioned	Test Method
Charpy Notched Impact Strength ft-lb/in (kJ/m²)			ISO 179
23 ℃	1.87 (10)	2.25 (12)	
-30 ℃	1.69 (9)	1.69 (9)	
Charpy Unnotched Impact Strength, ft-lb/in (kJ/m²)			ISO 179
23°C	14 (75)	15 (80)	
-30 °C	13.1 (70)	13.1 (70)	
Notched Izod Impact Strength, ft-lb/in (kJ/m²)			ISO 180
23°C	2.4 (13)	3.3 (18)	
-30 °C	2 (11)	2 (11)	

Thermal	DAM	Conditioned	Test Method
Heat Deflection Temperature, °F (℃)			ISO 75
0.45 MPa Unannealed	424 (218)	-	
1.8 MPa Unannealed	405 (207)	-	
Melting Temperature, °F (℃)	430 (221)	-	DSC

Flammability	DAM	Conditioned	Test Method
0.71 mm	HB	-	UL94
1.50 mm	HB	-	UL94
3.00 mm	HB	-	UL94

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