Niche Polymer

PoliXL™

PoliXL™ PA66M40BK

Nylon 66, 40% Mineral Reinforced, Black, Heat Stabilized

Physical	DAM	Conditioned	Test Method
Specific Gravity, g/cc	1.5	-	D792
Mold Shrinkage, %			D955
Parallel: 23 °C	0.4 - 0.6	-	
Perpendicular :23°C	0.7 - 0.9	-	
Water Absorption, %			D570
Equilibrium, 23 °C, 50% RH	1	-	
Ash (Mineral), %	40	-	D2584

Mechanical	DAM	Conditioned	Test Method
Tensile Modulus, psi (MPa)	1,400,000 (9,600)	362,590 (2,500)	ISO 527
Tensile Strength (Break), psi (MPa)	13,300 (92)	8,700 (60)	ISO 527
Tensile Strain (Break), %	3	5	ISO 527
Flexural Modulus, psi (MPa)	1,300,000 (9,000)	700,000 (4,800)	ISO 178
Flex Strength, psi (MPa)	45,000 (310)	-	ISO 178

Impact	DAM	Conditioned	Test Method
Charpy Notched Impact Strength ft-lb/in (kJ/m²)			ISO 179
23 ℃	1.12 (6)	1.7 (9)	
-30 ℃	0.56 (3)	0.56 (3)	
Charpy Unnotched Impact Strength, ft-lb/in (kJ/m²)			ISO 179
23°C	24 (126)	24 (126)	
-30 °C	15 (80)	15 (80)	
Notched Izod Impact Strength, ft-lb/in (kJ/m²)			ISO 180
23°C	0.65 (3.5)	0.84 (4.5)	
-30 °C	0.56 (3)	0.65 (3.5)	

Thermal	DAM	Conditioned	Test Method
Heat Deflection Temperature, °F (℃)			ISO 75
0.45 MPa Unannealed	473 (245)	-	
1.8 MPa Unannealed	401 (205)	-	
Melting Temperature, °F (℃)	505 (263)	-	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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