



PoliXL™ PA6GF40BK

Nylon 6, 40% Fiberglass Reinforced, Black, Heat Stabilized

Physical	DAM	Conditioned	Test Method
Specific Gravity, g/cc	1.43	-	D792
Mold Shrinkage, %			D955
Parallel: 23 °C	0.2 - 0.4	-	
Perpendicular :23°C	0.5 - 0.5	-	
Water Absorption, %			D570
Equilibrium, 23 °C, 50% RH	1.8	-	
Ash (Glass-fiber), %	40	-	D2584

Mechanical	DAM	Conditioned	Test Method
Tensile Modulus, psi (MPa)	1,850,000 (12,760)	1,200,000 (8,270)	ISO 527
Tensile Strength (Break), psi (MPa)	29,000 (200)	19,000 (131)	ISO 527
Tensile Strain (Break), %	4	7	ISO 527
Flexural Modulus, psi (MPa)	1,650,000 (11,400)	1,100,000 (7,580)	ISO 178
Flex Strength, psi (MPa)	42,000 (290)	28,000 (193)	ISO 178

Impact	DAM	Conditioned	Test Method
Charpy Notched Impact Strength ft-lb/ in (kJ/m ²)			ISO 179
23 °C	3 (16)	3.1 (17)	
-30 °C	2 (11)	2 (11)	
Charpy Unnotched Impact Strength, ft-lb/in (kJ/m ²)			ISO 179
23°C	17 (90)	20 (105)	
-30 °C	15 (80)	13 (69)	
Notched Izod Impact Strength, ft-lb/ in (kJ/m ²)			ISO 180
23°C	2 (11)	2.5 (13)	
-30 °C	1.5 (8)	1.8 (9.5)	

Thermal	DAM	Conditioned	Test Method
Heat Deflection Temperature, °F (°C)			ISO 75
0.45 MPa Unannealed	428 (220)	-	
1.8 MPa Unannealed	419 (215)	-	
Melting Temperature, °F (°C)	433 (223)	-	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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