

Generic Nylon 6 - Glass\Mineral

Polyamide 6

Generic

Message:

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General Information			
Filler / Reinforcement	Glass \Mineral		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.36 - 1.49	g/cm ³	ASTM D792
23°C	1.33 - 1.50	g/cm ³	ISO 1183
Molding Shrinkage			
Flow: 23°C	0.29 - 0.62	%	ASTM D955
23°C	0.39 - 1.0	%	ISO 294-4
Water Absorption			
23°C, 24 hr	0.70 - 1.0	%	ASTM D570
Saturated, 23°C	1.5 - 6.6	%	ASTM D570
Saturated, 23°C	5.4 - 7.0	%	ISO 62
Equilibrium, 23°C	1.6 - 1.7	%	ASTM D570
Equilibrium, 23°C, 50% RH	1.2 - 2.2	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (23°C)	105 - 122		ASTM D785
Ball Indentation Hardness	189 - 213	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
23°C	7490 - 8300	MPa	ASTM D638
23°C	5650 - 10100	MPa	ISO 527-2
Tensile Strength			
Yield, 23°C	92.0 - 150	MPa	ASTM D638
Yield, 23°C	74.4 - 127	MPa	ISO 527-2
Fracture, 23°C	99.0 - 132	MPa	ASTM D638
Fracture, 23°C	82.8 - 132	MPa	ISO 527-2
23°C	96.8 - 137	MPa	ASTM D638
Tensile Strain			
Yield, 23°C	2.0 - 3.1	%	ISO 527-2
Fracture, 23°C	2.0 - 4.1	%	ASTM D638
Fracture, 23°C	2.5 - 3.1	%	ISO 527-2
Flexural Modulus			

23°C	6130 - 8420	MPa	ASTM D790
23°C	3400 - 12300	MPa	ISO 178
Flexural Strength			
23°C	124 - 221	MPa	ASTM D790
23°C	145 - 201	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	3.0 - 10	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	30 - 50	kJ/m ²	ISO 179
Notched Izod Impact			
23°C	43 - 70	J/m	ASTM D256
23°C	3.8 - 10	kJ/m ²	ISO 180
Unnotched Izod Impact Strength (23°C)	4.9 - 41	kJ/m ²	ISO 180
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, not annealed	210 - 216	°C	ASTM D648
0.45 MPa, not annealed	198 - 216	°C	ISO 75-2/B
1.8 MPa, not annealed	188 - 205	°C	ASTM D648
1.8 MPa, not annealed	178 - 200	°C	ISO 75-2/A
Continuous Use Temperature	95.0 - 180	°C	ASTM D794
Vicat Softening Temperature	200 - 220	°C	ISO 306
Melting Temperature			
--	216 - 220	°C	
--	220	°C	DSC, ISO 3146
--	218 - 222	°C	ISO 11357-3
--	218 - 220	°C	ASTM D3418
Linear thermal expansion coefficient			
Flow	1.5E-5 - 3.1E-5	cm/cm/°C	ASTM D696
Flow	2.9E-5 - 4.1E-5	cm/cm/°C	ISO 11359-2
Lateral	5.0E-5 - 9.0E-5	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+10 - 1.0E+15	ohms	IEC 60093
Volume Resistivity			
23°C	1.0E+13 - 1.0E+15	ohms·cm	ASTM D257
23°C	1.0E+12 - 2.5E+15	ohms·cm	IEC 60093
Dielectric Strength			
23°C	3.5 - 16	kV/mm	ASTM D149
23°C	16 - 36	kV/mm	IEC 60243-1
Dissipation Factor (23°C)	5.3E-3 - 0.020		IEC 60250
Comparative Tracking Index	400 - 600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Burning Rate	0.0 - 100	mm/min	ISO 3795
Glow Wire Flammability Index	952 - 960	°C	IEC 60695-2-12

Glow Wire Ignition Temperature	650 - 960	°C	IEC 60695-2-13
Injection	Nominal Value	Unit	
Drying Temperature	79.2 - 90.9	°C	
Drying Time	2.9 - 5.2	hr	
Suggested Max Moisture	0.083 - 0.25	%	
Suggested Shot Size	55	%	
Rear Temperature	234 - 285	°C	
Middle Temperature	244 - 282	°C	
Front Temperature	255 - 285	°C	
Nozzle Temperature	245 - 285	°C	
Processing (Melt) Temp	250 - 290	°C	
Mold Temperature	79.1 - 101	°C	
Injection Pressure	6.89 - 89.6	MPa	
Holding Pressure	50.0 - 75.0	MPa	
Back Pressure	0.163 - 0.528	MPa	
Screw Speed	45 - 90	rpm	
Cushion	4.76 - 4.84	mm	

Injection instructions

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