

Generic Nylon 66 - Mineral

Polyamide 66

Generic

Message:

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General Information			
Filler / Reinforcement	Mineral filler		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.28 - 1.52	g/cm ³	ASTM D792
23°C	1.23 - 1.50	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (275°C/0.325 kg)	2.9 - 3.0	g/10 min	ISO 1133
Molding Shrinkage			
Flow: 23°C	0.40 - 1.2	%	ASTM D955
Transverse flow: 23°C	0.98 - 1.2	%	ASTM D955
23°C	0.68 - 1.4	%	ISO 294-4
Water Absorption			
23°C, 24 hr	0.50 - 0.82	%	ASTM D570
23°C, 24 hr	0.27 - 1.3	%	ISO 62
Saturated, 23°C	1.5 - 7.5	%	ASTM D570
Saturated, 23°C	4.9 - 7.2	%	ISO 62
Equilibrium, 23°C	0.30 - 2.3	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.60 - 2.4	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			
23°C	89 - 123		ASTM D785
23°C	85 - 120		ISO 2039-2
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
23°C	3220 - 8330	MPa	ASTM D638
23°C	3050 - 10100	MPa	ISO 527-2
Tensile Strength			
Yield, 23°C	53.7 - 131	MPa	ASTM D638
Yield, 23°C	58.0 - 91.0	MPa	ISO 527-2
Fracture, 23°C	70.8 - 132	MPa	ASTM D638
Fracture, 23°C	57.9 - 142	MPa	ISO 527-2
23°C	54.7 - 95.0	MPa	ASTM D638
Tensile Elongation			

Yield, 23°C	1.8 - 4.0	%	ASTM D638
Yield, 23°C	1.4 - 15	%	ISO 527-2
Fracture, 23°C	1.7 - 16	%	ASTM D638
Fracture, 23°C	1.3 - 11	%	ISO 527-2
Flexural Modulus			
23°C	2640 - 8500	MPa	ASTM D790
23°C	3100 - 9140	MPa	ISO 178
Flexural Strength			
23°C	99.3 - 159	MPa	ASTM D790
23°C	88.3 - 150	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	3.0 - 7.1	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	5.0 - 62	kJ/m ²	ISO 179
Notched Izod Impact			
23°C	26 - 72	J/m	ASTM D256
23°C	2.0 - 7.9	kJ/m ²	ISO 180
Unnotched Izod Impact (23°C)	45 - 550	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, not annealed	224 - 260	°C	ASTM D648
0.45 MPa, not annealed	209 - 251	°C	ISO 75-2/B
1.8 MPa, not annealed	78.4 - 245	°C	ASTM D648
1.8 MPa, not annealed	76.1 - 250	°C	ISO 75-2/A
Continuous Use Temperature	80.0 - 130	°C	ASTM D794
Vicat Softening Temperature	200 - 246	°C	ISO 306
Melting Temperature			
--	254 - 265	°C	
--	250 - 263	°C	ISO 11357-3
--	254 - 260	°C	ASTM D3418
--	260 - 261	°C	ISO 3146
Linear thermal expansion coefficient			
Flow	7.2E-6 - 6.1E-5	cm/cm/°C	ASTM D696
Flow	6.0E-6 - 6.5E-5	cm/cm/°C	ISO 11359-2
Lateral	6.3E-6 - 1.0E-4	cm/cm/°C	ISO 11359-2
RTI Elec	104 - 120	°C	UL 746
RTI Imp	65.0 - 120	°C	UL 746
RTI	104 - 115	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+10 - 2.5E+14	ohms	IEC 60093
Volume Resistivity			
23°C	1.0E+8 - 1.1E+17	ohms · cm	ASTM D257
23°C	1.0E+14 - 1.0E+17	ohms · cm	IEC 60093

Dielectric Strength			
23°C	3.5 - 24	kV/mm	ASTM D149
23°C	19 - 86	kV/mm	IEC 60243-1
Dielectric Constant			
23°C	3.40 - 3.90		ASTM D150
23°C	3.61		IEC 60250
Dissipation Factor (23°C)	0.010 - 0.015		IEC 60250
Comparative Tracking Index	300 - 600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Burning Rate	0.0 - 100	mm/min	ISO 3795
Glow Wire Flammability Index	650 - 960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature	650 - 960	°C	IEC 60695-2-13
Oxygen Index			
--	27 - 28	%	ASTM D2863
--	24 - 34	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	79.3 - 90.3	°C	
Drying Time	2.8 - 5.3	hr	
Suggested Max Moisture	0.20	%	
Suggested Max Regrind	22	%	
Rear Temperature	264 - 300	°C	
Middle Temperature	269 - 294	°C	
Front Temperature	270 - 299	°C	
Nozzle Temperature	276 - 288	°C	
Processing (Melt) Temp	263 - 299	°C	
Mold Temperature	69.3 - 101	°C	
Injection Pressure	68.7 - 97.7	MPa	
Holding Pressure	45.9 - 75.4	MPa	
Back Pressure	0.172 - 1.27	MPa	
Screw Speed	45 - 75	rpm	
Cushion	4.76 - 4.77	mm	
Injection instructions			

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