

Generic PP Homopolymer - Glass Fiber

Polypropylene Homopolymer

Generic

Message:

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General Information			
Filler / Reinforcement	Glass fiber reinforced material		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	0.953 - 1.26	g/cm ³	ASTM D792
23°C	1.04 - 1.22	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)			
230°C/2.16 kg	1.0 - 9.9	g/10 min	ASTM D1238
230°C/2.16 kg	0.50 - 15	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	1.00 - 15.0	cm ³ /10min	ISO 1133
Molding Shrinkage			
Flow: 23°C	0.20 - 0.69	%	ASTM D955
Transverse flow: 23°C	0.78 - 1.3	%	ASTM D955
23°C	0.18 - 1.0	%	ISO 294-4
Water Absorption			
23°C, 24 hr	0.010 - 0.034	%	ASTM D570
23°C, 24 hr	0.047 - 0.20	%	ISO 62
Equilibrium, 23°C, 50% RH	0.096 - 0.20	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (23°C)	97 - 115		ASTM D785
Durometer Hardness			
23°C	72 - 95		ASTM D2240
23°C	69 - 85		ISO 868
Ball Indentation Hardness	98.9 - 121	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
23°C	2000 - 7780	MPa	ASTM D638
23°C	2750 - 10000	MPa	ISO 527-2
Tensile Strength			
Yield, 23°C	35.8 - 96.5	MPa	ASTM D638
Yield, 23°C	39.9 - 95.6	MPa	ISO 527-2
Fracture, 23°C	31.4 - 90.9	MPa	ASTM D638
Fracture, 23°C	38.0 - 101	MPa	ISO 527-2

23°C	39.6 - 102	MPa	ASTM D638
23°C	27.0 - 96.6	MPa	ISO 527-2
Tensile Elongation			
Yield, 23°C	2.9 - 4.1	%	ASTM D638
Yield, 23°C	2.4 - 5.1	%	ISO 527-2
Fracture, 23°C	1.5 - 7.8	%	ASTM D638
Fracture, 23°C	1.5 - 4.4	%	ISO 527-2
Flexural Modulus			
23°C	2220 - 7100	MPa	ASTM D790
23°C	2880 - 7830	MPa	ISO 178
Flexural Strength			
23°C	51.4 - 131	MPa	ASTM D790
23°C	76.0 - 144	MPa	ISO 178
Yield, 23°C	49.0 - 147	MPa	ASTM D790
Fracture, 23°C	82.3 - 142	MPa	ASTM D790
Compressive Strength (23°C)	44.8 - 83.1	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	4.6 - 12	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	30 - 51	kJ/m ²	ISO 179
Notched Izod Impact			
23°C	41 - 110	J/m	ASTM D256
23°C	6.1 - 14	kJ/m ²	ISO 180
Unnotched Izod Impact			
23°C	230 - 700	J/m	ASTM D256
23°C	44 - 56	kJ/m ²	ISO 180
Dart Drop Impact (23°C)	0.300 - 0.922	J	ASTM D3029
Dart Drop Impact (23°C)	0.199 - 0.466	J	ASTM D5420
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, not annealed	147 - 163	°C	ASTM D648
0.45 MPa, not annealed	141 - 161	°C	ISO 75-2/B
1.8 MPa, not annealed	128 - 157	°C	ASTM D648
1.8 MPa, not annealed	118 - 155	°C	ISO 75-2/A
Vicat Softening Temperature			
--	118 - 164	°C	ASTM D1525
--	110 - 166	°C	ISO 306
Melting Temperature			
--	182 - 183	°C	
--	165	°C	ISO 11357-3, ASTM D3418
--	160 - 165	°C	ISO 3146
CLTE - Flow			
--	8.0E-6 - 0.068	cm/cm/°C	ASTM D696

--	3.0E-6 - 4.1E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity (23°C)	0.19 - 0.35	W/m/K	ASTM C177
RTI Elec	65.0 - 66.1	°C	UL 746
RTI Imp	65.0 - 66.1	°C	UL 746
RTI	65.0 - 66.1	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	7.6E+13 - 1.0E+15	ohms	IEC 60093
Volume Resistivity			
23°C	8.4E+14 - 1.0E+16	ohms·cm	ASTM D257
23°C	1.0E+13 - 2.5E+15	ohms·cm	IEC 60093
Dielectric Strength			
23°C	20 - 22	kV/mm	ASTM D149
23°C	59 - 61	kV/mm	IEC 60243-1
Dielectric Constant (23°C)	2.48 - 3.02		ASTM D150
Dissipation Factor			
23°C	1.0E-3		ASTM D150
23°C	0.0 - 2.5E-5		IEC 60250
Arc Resistance	120 - 125	sec	ASTM D495
Comparative Tracking Index	599 - 650	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Burning Rate	99 - 100	mm/min	ISO 3795
Glow Wire Flammability Index	650 - 960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature	550 - 776	°C	IEC 60695-2-13
Oxygen Index	20 - 21	%	ASTM D2863
Injection	Nominal Value	Unit	
Drying Temperature	75.3 - 82.3	°C	
Drying Time	2.0 - 3.0	hr	
Suggested Max Moisture	0.20	%	
Suggested Max Regrind	20	%	
Rear Temperature	203 - 247	°C	
Middle Temperature	234 - 246	°C	
Front Temperature	246 - 247	°C	
Nozzle Temperature	245 - 247	°C	
Processing (Melt) Temp	228 - 236	°C	
Mold Temperature	48.0 - 60.0	°C	
Injection Pressure	85.9 - 205	MPa	
Holding Pressure	51.0 - 60.3	MPa	
Back Pressure	0.241 - 0.423	MPa	
Screw Speed	45 - 75	rpm	
Cushion	8.81 - 8.93	mm	
Injection instructions			

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