

Generic PP Homopolymer - Talc

Polypropylene Homopolymer

Generic

Message:

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General Information			
Filler / Reinforcement	Talc filler		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.03 - 1.26	g/cm ³	ASTM D792
23°C	0.969 - 1.25	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)			
230°C/2.16 kg	4.9 - 21	g/10 min	ASTM D1238
230°C/2.16 kg	0.95 - 20	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	2.20 - 18.0	cm ³ /10min	ISO 1133
Molding Shrinkage			
Flow: 23°C	0.55 - 1.7	%	ASTM D955
Transverse flow: 23°C	1.1 - 1.8	%	ASTM D955
23°C	0.87 - 1.2	%	ISO 294-4
Water Absorption			
23°C, 24 hr	0.030 - 0.050	%	ASTM D570
23°C, 24 hr	0.020 - 0.052	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (23°C)	84 - 106		ASTM D785
Durometer Hardness			
23°C	72 - 79		ASTM D2240
23°C	63 - 78		ISO 868
Ball Indentation Hardness	74.8 - 85.2	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
23°C	1400 - 4700	MPa	ASTM D638
23°C	1980 - 4220	MPa	ISO 527-2
Tensile Strength			
Yield, 23°C	28.4 - 36.7	MPa	ASTM D638
Yield, 23°C	27.9 - 35.2	MPa	ISO 527-2
Fracture, 23°C	19.0 - 32.8	MPa	ASTM D638
Fracture, 23°C	21.7 - 30.3	MPa	ISO 527-2
23°C	30.0 - 35.5	MPa	ASTM D638

Tensile Elongation			
Yield, 23°C	2.6 - 7.2	%	ASTM D638
Yield, 23°C	1.7 - 8.4	%	ISO 527-2
Fracture, 23°C	3.7 - 31	%	ASTM D638
Fracture, 23°C	2.0 - 31	%	ISO 527-2
Flexural Modulus			
23°C	1870 - 4330	MPa	ASTM D790
23°C	1840 - 4220	MPa	ISO 178
Flexural Strength			
23°C	33.8 - 62.4	MPa	ASTM D790
23°C	44.8 - 50.6	MPa	ISO 178
Yield, 23°C	51.4 - 55.6	MPa	ASTM D790
Fracture, 23°C	44.8 - 59.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	1.3 - 4.1	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	10 - 40	kJ/m ²	ISO 179
Notched Izod Impact			
23°C	20 - 39	J/m	ASTM D256
23°C	2.0 - 6.0	kJ/m ²	ISO 180
Unnotched Izod Impact			
23°C	210 - 590	J/m	ASTM D256
23°C	8.5 - 9.5	kJ/m ²	ISO 180
Dart Drop Impact (23°C)	0.113 - 1.03	J	ASTM D3029
Dart Drop Impact (23°C)	0.339 - 0.943	J	ASTM D5420
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, not annealed	110 - 139	°C	ASTM D648
0.45 MPa, not annealed	109 - 133	°C	ISO 75-2/B
1.8 MPa, not annealed	58.5 - 91.1	°C	ASTM D648
1.8 MPa, not annealed	59.2 - 91.1	°C	ISO 75-2/A
Vicat Softening Temperature			
--	85.0 - 157	°C	ASTM D1525
--	88.3 - 158	°C	ISO 306
Melting Temperature			
--	165 - 182	°C	
--	160	°C	ISO 3146
CLTE - Flow			
--	6.0E-5 - 8.1E-5	cm/cm/°C	ASTM D696
--	6.0E-5 - 8.0E-5	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+14 - 1.0E+15	ohms	IEC 60093
Volume Resistivity			

23°C	9.8E+15 - 1.0E+16	ohms·cm	ASTM D257
23°C	1.0E+13 - 1.0E+15	ohms·cm	IEC 60093
Comparative Tracking Index	596 - 600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Burning Rate	0.0 - 100	mm/min	ISO 3795
Glow Wire Flammability Index	642 - 960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature	550 - 806	°C	IEC 60695-2-13
Oxygen Index	21	%	ASTM D2863
Optical	Nominal Value		Test Method
Gardner Gloss	46 - 47		ASTM D523
Injection	Nominal Value	Unit	
Drying Temperature	73.9 - 110	°C	
Drying Time	1.0 - 4.0	hr	
Suggested Max Moisture	0.070 - 0.20	%	
Suggested Max Regrind	16	%	
Rear Temperature	204 - 225	°C	
Middle Temperature	211 - 221	°C	
Front Temperature	190 - 247	°C	
Nozzle Temperature	188 - 239	°C	
Processing (Melt) Temp	198 - 248	°C	
Mold Temperature	30.0 - 66.1	°C	
Injection Pressure	5.86 - 105	MPa	
Holding Pressure	3.28 - 65.0	MPa	
Back Pressure	0.241 - 0.423	MPa	
Screw Speed	49 - 125	rpm	
Clamp Tonnage	3.4 - 4.5	kN/cm ²	
Cushion	4.76 - 9.53	mm	
Injection instructions			

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