

Generic PP Random Copolymer

Polypropylene Random Copolymer

Generic

Message:

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General Information			
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	0.898 - 0.902	g/cm ³	ASTM D792
23°C	0.891 - 0.910	g/cm ³	ISO 1183
--	0.900	g/cm ³	ASTM D1505
Apparent Density	0.52 - 0.53	g/cm ³	ISO 60
Melt Mass-Flow Rate (MFR)			
230°C/2.16 kg	0.25 - 38	g/10 min	ASTM D1238
230°C/2.16 kg	0.20 - 28	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	2.40 - 67.1	cm ³ /10min	ISO 1133
Spiral Flow	50.0 - 80.0	cm	
Molding Shrinkage			
Flow: 23°C	1.3 - 1.8	%	ASTM D955
23°C	1.5	%	ISO 294-4
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			
23°C	79 - 100		ASTM D785
23°C	75 - 98		ISO 2039-2
Durometer Hardness			
23°C	52 - 80		ASTM D2240
23°C	58 - 68		ISO 868
Ball Indentation Hardness	44.8 - 60.0	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
23°C	892 - 1200	MPa	ASTM D638
23°C	790 - 1300	MPa	ISO 527-2
Tensile Strength			
Yield, 23°C	24.4 - 30.5	MPa	ASTM D638
Yield, 23°C	19.6 - 31.4	MPa	ISO 527-2
Fracture, 23°C	19.3 - 44.3	MPa	ASTM D638
Fracture, 23°C	14.5 - 40.0	MPa	ISO 527-2
Tensile Elongation			

Yield, 23°C	6.0 - 28	%	ASTM D638
Yield, 23°C	10 - 16	%	ISO 527-2
Fracture, 23°C	78 - 510	%	ASTM D638
Fracture, 23°C	46 - 510	%	ISO 527-2
Apparent Bending Modulus (23°C)	740 - 830	MPa	ASTM D747
Flexural Modulus			
23°C	766 - 1270	MPa	ASTM D790
23°C	573 - 1260	MPa	ISO 178
Flexural Stress (23°C)	6.50 - 25.0	MPa	ISO 178
Coefficient of Friction	0.15 - 1.0		ASTM D1894
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	50 - 80	µm	
secant modulus			
MD	345 - 790	MPa	ASTM D882
23°C	190 - 801	MPa	ISO 527-3
Tensile Strength			
MD: Yield	18.0 - 22.6	MPa	ASTM D882
MD: Fracture	20.3 - 40.5	MPa	ASTM D882
Fracture, 23°C	29.0 - 39.6	MPa	ISO 527-3
23°C	25.0 - 42.5	MPa	ISO 527-3
Tensile Elongation			
MD: Fracture	490 - 760	%	ASTM D882
Fracture, 23°C	500 - 760	%	ISO 527-3
Instrumented Dart Impact (23°C)	1.00 - 30.3	J	ISO 7765-2
Seal Initiation Temperature	105 - 115	°C	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	3.0 - 22	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	5.0 - 200	kJ/m ²	ISO 179
Notched Izod Impact			
23°C	26 - 82	J/m	ASTM D256
23°C	3.4 - 9.5	kJ/m ²	ISO 180
Unnotched Izod Impact (23°C)	39 - 72	J/m	ASTM D256
Dart Drop Impact (23°C)	23.4 - 36.2	J	ASTM D5420
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, not annealed	72.8 - 100	°C	ASTM D648
0.45 MPa, not annealed	54.5 - 85.7	°C	ISO 75-2/B
1.8 MPa, not annealed	49.1 - 55.3	°C	ASTM D648
1.8 MPa, not annealed	45.6 - 96.0	°C	ISO 75-2/A
Vicat Softening Temperature			
--	125 - 140	°C	ASTM D1525
--	65.4 - 137	°C	ISO 306

Melting Temperature			
--	128 - 150	°C	
--	132 - 150	°C	DSC
--	140 - 150	°C	ISO 11357-3
--	125 - 150	°C	ASTM D3418
--	125 - 148	°C	ISO 3146

Optical	Nominal Value	Unit	Test Method
Gloss	79 - 132		ASTM D2457
Haze	0.40 - 17	%	ASTM D1003

Injection	Nominal Value	Unit
Rear Temperature	180 - 220	°C
Middle Temperature	205 - 221	°C
Front Temperature	205 - 227	°C
Processing (Melt) Temp	206 - 250	°C
Mold Temperature	27.5 - 40.4	°C

Injection instructions

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Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	185 - 206	°C
Cylinder Zone 2 Temp.	185 - 206	°C
Cylinder Zone 3 Temp.	185 - 206	°C
Cylinder Zone 4 Temp.	185 - 206	°C
Cylinder Zone 5 Temp.	185 - 206	°C
Melt Temperature	194 - 301	°C
Die Temperature	199 - 216	°C

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