Generic Acetal (POM) Copolymer - Glass Fiber

Acetal (POM) Copolymer

Generic

Message:

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General Information			
Filler / Reinforcement	Glass fiber reinforced material		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity			
--	1.43 - 1.65	g/cm³	ASTM D792
23°C	1.45 - 1.65	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)			
190°C/2.16 kg	2.6 - 19	g/10 min	ASTM D1238
190°C/2.16 kg	3.0 - 13	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	2.29 - 6.23	cm³/10min	ISO 1133
Molding Shrinkage			
Flow: 23°C	0.27 - 1.2	%	ASTM D955
Transverse flow: 23°C	0.98 - 2.1	%	ASTM D955
23°C	0.37 - 1.8	%	ISO 294-4
Water Absorption			
23°C, 24 hr	0.095 - 0.90	%	ASTM D570
23°C, 24 hr	0.090 - 0.70	%	ISO 62
Saturated, 23°C	0.20 - 0.80	%	ASTM D570
Saturated, 23°C	0.19 - 0.90	%	ISO 62
Equilibrium, 23°C	0.20	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.14 - 0.21	%	ISO 62
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (23°C)	79 - 113		ASTM D785
Ball Indentation Hardness	179 - 230	MPa	ISO 2039-1
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
23°C	4360 - 11100	MPa	ASTM D638
23°C	2930 - 10600	MPa	ISO 527-2
Tensile Strength			
Yield, 23°C	56.8 - 149	MPa	ASTM D638
Yield, 23°C	59.5 - 131	MPa	ISO 527-2
Fracture, 23°C	54.5 - 117	MPa	ASTM D638
Fracture, 23°C	59.4 - 132	MPa	ISO 527-2

23°C	61.7 - 129	MPa	ASTM D638
Tensile Elongation			
Yield, 23°C	2.4 - 4.1	%	ASTM D638
Yield, 23°C	2.1 - 2.3	%	ISO 527-2
Fracture, 23°C	1.0 - 7.4	%	ASTM D638
Fracture, 23°C	1.3 - 4.4	%	ISO 527-2
Flexural Modulus			
23°C	3040 - 9520	MPa	ASTM D790
23°C	2000 - 10100	MPa	ISO 178
Flexural Strength			
23°C	89.3 - 201	MPa	ASTM D790
23°C	89.1 - 177	MPa	ISO 178
Yield, 23°C	69.0 - 276	MPa	ASTM D790
Coefficient of Friction	0.14 - 0.60		ASTM D1894
Wear Factor	32 - 10000	10^-8 $mm^3/N \cdot m$	ASTM D3702
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	3.4 - 9.1	kJ/m^2	ISO 179
Charpy Unnotched Impact Strength (23°C)	19 - 36	kJ/m^2	ISO 179
Notched Izod Impact			
23°C	40 - 82	J/m	ASTM D256
23°C	3.7 - 7.2	kJ/m^2	ISO 180
Unnotched Izod Impact			
23°C	420 - 610	J/m	ASTM D256
23°C	18 - 43	kJ/m^2	ISO 180
Instrumented Dart Impact			
23°C	5.60 - 10.4	J	ASTM D3763
23°C	1.00 - 3.30	J	ISO 6603-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, not annealed	160 - 166	°C	ASTM D648
0.45 MPa, not annealed	161 - 165	°C	ISO 75-2/B
1.8 MPa, not annealed	155 - 165	°C	ASTM D648
1.8 MPa, not annealed	158 - 162	°C	ISO 75-2/A
Vicat Softening Temperature	149 - 160	°C	ISO 306
Melting Temperature			
--	165 - 166	°C	ASTM D3418
--	165 - 167	°C	ISO 11357-3
Linear thermal expansion coefficient			
Flow	2.3E-5 - 6.7E-5	cm/cm/°C	ASTM D696
Flow	2.9E-5 - 8.3E-5	cm/cm/°C	ISO 11359-2
Lateral	7.9E-5 - 1.0E-4	cm/cm/°C	ISO 11359-2
Electrical	**Nominal Value**	**Unit**	**Test Method**

Surface Resistivity			
--	2.0E+3 - 1.3E+16	ohms	ASTM D257
--	1.0E+4 - 1.1E+16	ohms	IEC 60093
Volume Resistivity			
23°C	4.0E+3 - 2.5E+15	ohms·cm	ASTM D257
23°C	1.0E+12 - 2.5E+16	ohms·cm	IEC 60093
Dielectric Strength			
23°C	18 - 32	kV/mm	ASTM D149
23°C	19 - 40	kV/mm	IEC 60243-1
Dielectric Constant			
23°C	3.70 - 3.71		ASTM D150
23°C	4.00 - 4.20		IEC 60250
23°C	4.20		IEC 60250
Dissipation Factor			
23°C	6.0E-3 - 6.1E-3		ASTM D150
23°C	2.9E-3 - 9.5E-3		IEC 60250
Comparative Tracking Index	598 - 600	V	IEC 60112

Injection	Nominal Value	Unit
Drying Temperature	70.0 - 122	°C
Drying Time	1.9 - 4.0	hr
Suggested Max Moisture	0.10 - 0.15	%
Suggested Max Regrind	18	%
Hopper Temperature	25.0 - 42.5	°C
Rear Temperature	174 - 210	°C
Middle Temperature	185 - 201	°C
Front Temperature	185 - 216	°C
Nozzle Temperature	190 - 210	°C
Processing (Melt) Temp	188 - 210	°C
Mold Temperature	79.9 - 107	°C
Injection Pressure	83.2 - 95.7	MPa
Holding Pressure	55.0 - 115	MPa
Back Pressure	0.250 - 0.568	MPa
Screw Speed	45 - 75	rpm

Injection instructions

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Recommended distributors for this material

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