



Delrin® 577 BK000

DuPont Performance Polymers - Acetal (POM) Homopolymer

Thursday, January 31, 2019

General Information

Product Description

20% Glass Filled Medium Viscosity Acetal Homopolymer

General

Material Status	• Commercial: Active
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight
Additive	• Mold Release
Features	• Homopolymer • Medium Viscosity
RoHS Compliance	• Contact Manufacturer
Forms	• Pellets
Processing Method	• Injection Molding
Multi-Point Data	• Shear Modulus vs. Temperature (ISO 11403-1) • Shear Modulus vs. Temperature, Dynamic (ISO 11403-1) • Shear Stress vs. Shear Rate (ISO 11403-1) • Specific Volume vs Temperature (ISO 11403-2) • Viscosity vs. Shear Rate (ISO 11403-2)
Part Marking Code (ISO 11469)	• POM-GF20
Resin ID (ISO 1043)	• POM-GF20

ASTM and ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density	1.56	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	7.00	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.1	%	
Flow	1.7	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	4800	MPa	ISO 527-2
Tensile Stress (Break)	52.0	MPa	ISO 527-2
Tensile Strain (Break)	10	%	ISO 527-2
Flexural Modulus	4600	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	3.0	kJ/m ²	
23°C	3.0	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (0.45 MPa, Unannealed)	164	°C	ISO 75-2/B
Heat Deflection Temperature (1.8 MPa, Unannealed)	118	°C	ISO 75-2/A
Melting Temperature ²	178	°C	ISO 11357-3
CLTE - Flow	5.6E-5	cm/cm/°C	ISO 11359-2
CLTE - Transverse	9.2E-5	cm/cm/°C	ISO 11359-2
Annealing Temperature	160	°C	
Annealing Time - Optional	30.0	min/mm	

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Flammability	Nominal Value	Unit	Test Method
Burning Rate ³ (1.00 mm)	< 100	mm/min	ISO 3795
Flame Rating			UL 94
1.5 mm		HB	
3.0 mm		HB	
Flammability Classification			IEC 60695-11-10, -20
1.5 mm		HB	
3.0 mm		HB	
FMVSS Flammability		B	FMVSS 302

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	80	°C
Drying Time - Desiccant Dryer	2.0 to 4.0	hr
Suggested Max Moisture	0.20	%
Processing (Melt) Temp	20 to 210	°C
Melt Temperature, Optimum	215	°C
Mold Temperature	80 to 100	°C
Mold Temperature, Optimum	90	°C
Holding Pressure	80.0 to 100	MPa
Drying Recommended	yes	
Hold Pressure Time	8.00	s/mm

Notes

¹ Typical properties: these are not to be construed as specifications.

² 10°C/min

³ FMVSS 302