

Delrin® 577 BK000

ACETAL RESIN

DuPont Mobility & Materials

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

20% Glass Filled Medium Viscosity Acetal Homopolymer

General

Material Status	• Commercial: Active
UL Yellow Card ¹	• E530507-104597291
Search for UL Yellow Card	• DuPont Mobility & Materials • Delrin®
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight
Additive	• Mold Release
RoHS Compliance	• Contact Manufacturer
Multi-Point Data	• Shear Stress vs. Shear Rate (ISO 11403) • Specific Volume vs Temperature (ISO 11403) • Viscosity vs. Shear Rate (ISO 11403)
Part Marking Code (ISO 11469)	• >POM-GF20<
Resin ID (ISO 1043)	• POM-GF20

Physical	Nominal Value Unit	Test Method
Density	1.56 g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	7.0 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 527-1
Tensile Stress (Break)	52.0 MPa	ISO 527-2
Tensile Strain (Break)	10 %	ISO 527-2
Flexural Modulus	4600 MPa	ISO 178
Poisson's Ratio	0.36	

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
Deflection Temperature Under Load		
0.45 MPa, Unannealed	164 °C	ISO 75-2/B
1.8 MPa, Unannealed	118 °C	ISO 75-2/A
Melting Temperature ³	178 °C	ISO 11357-3
CLTE		ISO 11359-2
Flow	5.6E-5 cm/cm/°C	
Transverse	9.2E-5 cm/cm/°C	
Annealing Temperature	160 °C	
Annealing Time - Optional	30.0 min/mm	



Flammability	Nominal Value Unit	Test Method
Burning Rate ⁴ (1.00 mm)	< 80 mm/min	ISO 3795
Flame Rating		UL 94
1.5 mm	HB	IEC 60695-11-10, -20
3.0 mm	HB	
FMVSS Flammability	B	FMVSS 302

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	210 to 220 °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
Maximum Screw Tangential Speed	18 m/min

Notes

¹ A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

² Typical properties: these are not to be construed as specifications.

³ 10°C/min

⁴ FMVSS 302

