

DELTRIN 100P BK602

Delrin USA, LLC - Acetal (POM) Homopolymer

General Information
General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Mold Release		
Features	• Good Mold Release • Good Strength	• Good Thermal Stability • Good Toughness	• High Viscosity • Homopolymer
RoHS Compliance	• Contact Manufacturer		
Automotive Specifications	• ASTM D6778 POM0111 • FORD WSK-M4D637-A1	• GM GMP.POM.003 • STELLANTIS MS-DB-100 CPN2315	
Part Marking Code (ISO 11469)	• >POM<		
Resin ID (ISO 1043)	• POM		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.42	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	2.6	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	2.2	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.7	%	
Flow	2.1	%	
Water Absorption (Saturation, 73°F, 0.0787 in)	1.4	%	ISO 62
Water Absorption (Equilibrium, 73°F, 0.0787 in, 50% RH)	0.30	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	435000	psi	ISO 527-1
Tensile Stress (Yield)	10300	psi	ISO 527-2
Tensile Strain (Yield)	22	%	ISO 527-2
Nominal Tensile Strain at Break	35	%	ISO 527-2
Flexural Modulus	406000	psi	ISO 178
Poisson's Ratio	0.37		
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	4.8	ft·lb/in ²	
73°F	5.2	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	140	ft·lb/in ²	
73°F	170	ft·lb/in ²	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	329	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	203	°F	ISO 75-2/A
Melting Temperature ²	352	°F	ISO 11357-3
CLTE - Flow			ISO 11359-2
--	6.1E-5	in/in/°F	
-40 to 73°F	5.6E-5	in/in/°F	
CLTE - Transverse			ISO 11359-2
--	6.1E-5	in/in/°F	
-40 to 73°F	5.6E-5	in/in/°F	



RTI Elec		UL 746B
0.030 in	122 °F	
0.06 in	230 °F	
0.12 in	230 °F	
RTI Imp		UL 746B
0.030 in	122 °F	
0.06 in	185 °F	
0.12 in	194 °F	
RTI Str		UL 746B
0.030 in	122 °F	
0.06 in	194 °F	
0.12 in	203 °F	
Annealing Temperature	320 °F	
Annealing Time - Optional	30.0 min/mm	
Flammability	Nominal Value Unit	Test Method
Burning Rate ³ (0.0394 in)	1.5 in/min	ISO 3795
Flame Rating		UL 94
0.031 in	HB	
0.06 in	HB	
Flammability Classification		IEC 60695-11-10, -20
0.03 in	HB	
0.06 in	HB	
FMVSS Flammability	B	FMVSS 302
Additional Information	Nominal Value Unit	Test Method
Emission	< 8 ppm	VDA 275

Processing Information

Injection	Nominal Value Unit
Drying Temperature	176 °F
Drying Time - Desiccant Dryer	2.0 to 4.0 hr
Suggested Max Moisture	< 0.20 %
Processing (Melt) Temp	410 to 428 °F
Melt Temperature, Optimum	419 °F
Mold Temperature	176 to 212 °F
Mold Temperature, Optimum	194 °F
Holding Pressure	13100 to 16000 psi
Drying Recommended	yes
Hold Pressure Time	8.00 s/mm
Maximum Screw Tangential Speed	472 in/min
Extrusion	Nominal Value Unit
Drying Temperature	176 °F
Drying Time	2.0 to 4.0 hr
Suggested Max Moisture	< 0.20 %
Melt Temperature	383 to 401 °F
Extrusion Melt Temperature, Optimum	392 °F

Notes

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

² 10°C/min

³ FMVSS 302

