

DELTRIN 311DP BK402

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	• Creep Resistant • Crystalline • Fast Molding Cycle • Fatigue Resistant	• Good Mold Release • Good Thermal Stability • High Dimensional Stability • Homopolymer	• Low Warpage • Medium-high Viscosity
RoHS Compliance	• Contact Manufacturer		
Automotive Specifications	• GM GMP.POM.002	• STELLANTIS MS-DB-100 CPN4392	
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)	7.0	g/10 min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	479000	psi	ISO 527-1
Tensile Stress (Yield)	10900	psi	ISO 527-2
Tensile Strain (Yield)	15	%	ISO 527-2
Nominal Tensile Strain at Break	28	%	ISO 527-2
Poisson's Ratio	0.37		
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	3.8	ft-lb/in ²	
73°F	4.3	ft-lb/in ²	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	217	°F	ISO 75-2/A
Melting Temperature ²	352	°F	ISO 11357-3
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
Emission	< 8 ppm	VDA 275

Processing Information

	Nominal Value	Unit
Injection		
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	11600 to 14500	psi
Drying Recommended	yes	
Hold Pressure Time	7.50	s/mm
Maximum Screw Tangential Speed	472	in/min
Extrusion		
Drying Temperature	167 to 185	°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

