

DELTRIN 127UVE NC010

Delrin USA, LLC - Acetal (POM) Homopolymer

General Information
General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Additive	• Mold Release • UV Stabilizer
Features	• Good Mold Release • Homopolymer • UV Stabilized • High Viscosity • Low VOC
Uses	• Automotive Applications
RoHS Compliance	• Contact Manufacturer
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)	2.5	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	2.1	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.9	%	
Flow	2.1	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	421000	psi	ISO 527-1
Tensile Stress (Yield)	10300	psi	ISO 527-2
Tensile Strain (Yield)	25	%	ISO 527-2
Nominal Tensile Strain at Break	45	%	ISO 527-2
Flexural Modulus	406000	psi	ISO 178
Flexural Stress (3.5% Strain)	11200	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	6.7	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	160	ft·lb/in ²	
73°F	190	ft·lb/in ²	
Notched Izod Impact Strength (73°F)	5.7	ft·lb/in ²	ISO 180/1A
Unnotched Izod Impact Strength (-22°F)	130	ft·lb/in ²	ISO 180/1U
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ISO 2039-2
M-Scale	88		
R-Scale	120		
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	318	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	196	°F	ISO 75-2/A
Vicat Softening Temperature			
--	320	°F	ISO 306/B50
--	345	°F	ISO 306/A50



Melting Temperature ²	352 °F	ISO 11357-3
CLTE - Flow	6.7E-5 in/in/°F	ISO 11359-2
CLTE - Transverse	6.1E-5 in/in/°F	ISO 11359-2
Annealing Temperature	320 °F	
Annealing Time - Optional	30.0 min/mm	
Flammability	Nominal Value Unit	Test Method
Burning Rate ³ (0.0394 in)	1.1 in/min	ISO 3795
FMVSS Flammability	B	FMVSS 302
Additional Information	Nominal Value Unit	Test Method
Emission	< 2 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	392 to 410 °F
Melt Temperature, Optimum	401 °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	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

