

**DELTRIN 127UV NC010**

Delrin USA, LLC - Acetal (POM) Homopolymer

**General Information**
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Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Additive	• Mold Release • UV Stabilizer
Features	• Good Mold Release • High Viscosity • UV Stabilized • Good Thermal Stability • Homopolymer
Uses	• Automotive Applications
RoHS Compliance	• Contact Manufacturer
Automotive Specifications	• ASTM D6778 POM0131 • GM GMP.POM.017 • FORD WSS-M4D744-A4 • STELLANTIS MS-DB-100 CPN4174
Part Marking Code (ISO 11469)	• >POM<
Resin ID (ISO 1043)	• POM

**Properties <sup>1</sup>**

Physical	Nominal Value	Unit	Test Method
Density	1.42	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	2.4	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	1.9	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.9	%	
Flow	2.1	%	
Water Absorption (24 hr, 73°F)	0.50	%	ISO 62
Water Absorption (Saturation, 73°F, 0.0787 in)	1.2	%	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)	10200	psi	ISO 527-2
Tensile Strain (Yield)	23	%	ISO 527-2
Nominal Tensile Strain at Break	45	%	ISO 527-2
Flexural Modulus	377000	psi	ISO 178
Flexural Stress			ISO 178
--	10400	psi	
3.5% Strain	11700	psi	
Poisson's Ratio	0.37		
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	5.2	ft·lb/in <sup>2</sup>	
73°F	7.1	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	170	ft·lb/in <sup>2</sup>	
73°F	190	ft·lb/in <sup>2</sup>	
Notched Izod Impact Strength			ISO 180/1A
-40°F	5.2	ft·lb/in <sup>2</sup>	
73°F	6.2	ft·lb/in <sup>2</sup>	
Unnotched Izod Impact Strength (-22°F)	130	ft·lb/in <sup>2</sup>	ISO 180/1U
Hardness	Nominal Value	Unit	Test Method



Rockwell Hardness		ISO 2039-2
M-Scale	92	
R-Scale	120	
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>
Deflection Temperature Under Load (66 psi, Unannealed)	320	°F
Deflection Temperature Under Load (264 psi, Unannealed)	199	°F
Vicat Softening Temperature	320	°F
Melting Temperature <sup>2</sup>	352	°F
CLTE - Flow	6.7E-5	in/in/°F
CLTE - Transverse	6.1E-5	in/in/°F
RTI Elec (0.030 in)	122	°F
RTI Imp (0.030 in)	122	°F
RTI Str (0.030 in)	122	°F
Annealing Temperature	320	°F
Annealing Time - Optional	30.0	min/mm
<b>Electrical</b>	<b>Nominal Value</b>	<b>Unit</b>
Volume Resistivity	1.0E+11	ohms·m
Relative Permittivity		
100 Hz	3.50	
1 MHz	3.40	
Dissipation Factor (1 MHz)	6.0E-3	
Comparative Tracking Index	600	V
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>
Burning Rate <sup>3</sup> (0.0394 in)	0.71	in/min
Flame Rating (0.031 in)	HB	
Flammability Classification (0.03 in)	HB	
FMVSS Flammability	B	
<b>Additional Information</b>	<b>Nominal Value</b>	<b>Unit</b>
Emission	< 8	ppm
Fogging - G-value (condensate)	0.15	mg

### Processing Information

<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>
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
<b>Extrusion</b>	<b>Nominal Value</b>	<b>Unit</b>
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

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 10°C/min

<sup>3</sup> FMVSS 302

