

# DuPont™ Delrin®

acetal resin

## Delrin® 127UV NC010

Delrin® 127UV is a high viscosity acetal homopolymer with UV stabilizers developed for automotive interior applications. It has improvements in UV aging characteristics and thermal stability over Delrin® 107.

Property	Test Method	Units	Value
<b>Identification</b>			
Resin Identification	ISO 1043		POM
Part Marking Code	ISO 11469		>POM<
<b>Mechanical</b>			
Yield Stress	ISO 527	MPa (kpsi)	70 (10.1)
Yield Strain	ISO 527	%	23
Strain at Break	ISO 527	%	
50mm/min			65
Nominal Strain at Break	ISO 527	%	45
Tensile Modulus	ISO 527	MPa (kpsi)	2900 (420)
Flexural Modulus	ISO 178	MPa (kpsi)	2700 (390)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m <sup>2</sup>	
-30°C (-22°F)			11
23°C (73°F)			15
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m <sup>2</sup>	
-30°C (-22°F)			350
23°C (73°F)			400

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc.

ISO Mechanical properties measured at 4.0mm, ISO Electrical properties measured at 2.0mm, and all ASTM properties measured at 3.2mm.

Test temperatures are 23°C unless otherwise stated.

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Property	Test Method	Units	Value
<b>Thermal</b>			
Deflection Temperature 0.45MPa	ISO 75-1/-2	°C (°F)	160 (320)
1.80MPa			90 (195)
Melting Temperature 10°C/min	ISO 11357-1/-3	°C (°F)	178 (352)
CLTE, Normal -40 - 23°C (-40 - 73°F)	ISO 11359-1/-2	E-4/C (E-4/F)	1.0 (0.55)
23 - 55°C (73 - 130°F)			1.1 (0.62)
55 - 100°C (130 - 212°F)			1.7 (0.93)
CLTE, Parallel -40 - 23°C (-40 - 73°F)	ISO 11359-1/-2	E-4/C (E-4/F)	1.0 (0.56)
23 - 55°C (73 - 130°F)			1.2 (0.67)
55 - 100°C (130 - 212°F)			1.6 (0.88)
Vicat Softening Temperature 50N	ISO 306	°C (°F)	160 (320)
<b>Rheological</b>			
Melt Mass-Flow Rate 190°C, 2.16kg	ISO 1133	g/10 min	2.4
<b>Electrical</b>			
Volume Resistivity	IEC 60093	ohm m	1E11
Electric Strength 1.0mm	IEC 60243-1	kV/mm	24 32 (812)
Relative Permittivity 1E2 Hz	IEC 60250		3.5
1E6 Hz			3.4
Dissipation Factor 1E2 Hz	IEC 60250	E-4	180
1E6 Hz			60
CTI	IEC 60112	V	600

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Property	Test Method	Units	Value
<b>Flammability</b>			
Flammability Classification 0.84mm	IEC 60695-11-10		HB
Oxygen Index	ISO 4589-1/-2	%	20
<b>Temperature Index</b>			
RTI, Electrical 0.85mm	UL 746B	°C	50
RTI, Impact 0.85mm	UL 746B	°C	50
RTI, Strength 0.85mm	UL 746B	°C	50
<b>Other</b>			
Density	ISO 1183	kg/m <sup>3</sup> (g/cm <sup>3</sup> )	1420 (1.42)
Hardness, Rockwell Scale M	ISO 2039/2		92
Scale R			120
Water Absorption Equilibrium 50%RH	ISO 62, Similar to	%	0.3
Immersion 24h			0.5
Saturation, immersed			1.2
Molding Shrinkage Normal, 2.0mm	ISO 294-4	%	1.9
Parallel, 2.0mm			2.1
<b>Processing</b>			
Melt Temperature Range		°C (°F)	210-220 (410-430)
Melt Temperature Optimum		°C (°F)	215 (420)
Mold Temperature Range		°C (°F)	80-100 (175-210)
Mold Temperature Optimum		°C (°F)	90 (195)
Drying Time, Dehumidified Dryer		h	2-4
Drying Temperature		°C (°F)	80 (175)
Processing Moisture Content		%	<0.2
Hold Pressure Range		MPa (kpsi)	90-110 (13-16)

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