

DuPont™ Delrin®

acetal resin

Delrin® 911AL NC010

Delrin® 911AL is a low viscosity acetal homopolymer with an advanced system of lubrication for applications that require low wear/low friction and with dimensional stability for applications requiring precision in molded parts.

Property	Test Method	Units	Value
Identification			
Resin Identification	ISO 1043		POM-S
Part Marking Code	ISO 11469		>POM-S<
Mechanical			
Yield Stress	ISO 527	MPa (kpsi)	70 (10.1)
Yield Strain	ISO 527	%	9
Nominal Strain at Break	ISO 527	%	22
Tensile Modulus	ISO 527	MPa (kpsi)	3300 (480)
Flexural Modulus	ISO 178	MPa (kpsi)	3200 (460)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²	
-30°C (-22°F)			4
23°C (73°F)			5
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m ²	
-30°C (-22°F)			130
23°C (73°F)			150

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
Thermal			
Deflection Temperature 0.45MPa	ISO 75-1/-2	°C (°F)	162 (324)
1.80MPa			103 (215)
Melting Temperature 10°C/min	ISO 11357-1/-3	°C (°F)	178 (352)
CLTE, Parallel -40 - 23°C (-40 - 73°F)	ISO 11359-1/-2	E-4/C (E-4/F)	0.9 (0.50)
23 - 55°C (73 - 130°F)			1.0 (0.56)
55 - 100°C (130 - 212°F)			1.3 (0.72)
CLTE, Normal -40 - 23°C (-40 - 73°F)	ISO 11359-1/-2	E-4/C (E-4/F)	0.9 (0.50)
23 - 55°C (73 - 130°F)			1.0 (0.56)
55 - 100°C (130 - 212°F)			1.4 (0.78)
Rheological			
Melt Mass-Flow Rate 190°C, 2.16kg	ISO 1133	g/10 min	25
Flammability			
Flammability Classification 0.75mm	IEC 60695-11-10		HB
1.5mm			HB
3.0mm			HB
Temperature Index			
RTI, Electrical 0.75mm	UL 746B	°C	50
1.5mm			110
3.0mm			110

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Property	Test Method	Units	Value
Temperature Index			
RTI, Impact	UL 746B	°C	
0.75mm			50
1.5mm			85
3.0mm			90
RTI, Strength	UL 746B	°C	
0.75mm			50
1.5mm			90
3.0mm			95
Other			
Density	ISO 1183	kg/m ³ (g/cm ³)	1400 (1.4)
Molding Shrinkage	ISO 294-4	%	
Normal, 2.0mm			1.6
Parallel, 2.0mm			1.6
Processing			
Melt Temperature Range		°C (°F)	200-215 (390-420)
Melt Temperature Optimum		°C (°F)	215 (420)
Mold Temperature Range		°C (°F)	60-100 (140-210)
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)	80-100 (12-15)

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