DuPont™ Delrin®

acetal resin

Delrin® II 100 NC010

Delrin® II 100 is a high viscosity acetal for use in easy to fill molds. Delrin® II 100 provides maximum toughness in the product line without modification.

Property	Test Method	Units	Value
Identification			
Resin Identification	ISO 1043		POM
Part Marking Code	ISO 11469		>POM<
Mechanical			
Yield Stress	ISO 527	MPa (kpsi)	71 (10.2)
Yield Strain	ISO 527	%	25
Strain at Break	ISO 527	%	63
Nominal Strain at Break	ISO 527	%	41
Tensile Modulus	ISO 527	MPa (kpsi)	3100 (450)
Flexural Modulus	ISO 178	MPa (kpsi)	2800 (406)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m^2	
-30°C (-22°F)			12
23°C (73°F)			15
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m^2	NB
Thermal			
Deflection Temperature	ISO 75-1/-2	°C (°F)	
0.45MPa			165 (330)
1.80MPa			98 (210)
Melting Temperature	ISO 11357-1/-3	°C (°F)	
10°C/min			178 (350)
CLTE, Parallel	ISO 11359-1/-2	E-4/C (E-4/F)	
-40 - 23°C (-40 - 73°F)			1.01 (0.56)
23 - 55°C (73 - 130°F)			1.0 (0.6)
55 - 100°C (130 - 212°F)			1.46 (0.81)

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			
CLTE, Normal	ISO 11359-1/-2	E-4/C (E-4/F)	
-40 - 23°C (-40 - 73°F)			0.98 (0.54)
23 - 55°C (73 - 130°F)			1.1 (0.6)
55 - 100°C (130 - 212°F)			1.53 (0.85)
Rheological			
Melt Mass-Flow Rate	ISO 1133	g/10 min	2.3
Flammability			
Flammability Classification	IEC 60695-11-10		
0.8mm			HB
1.5mm			HB
3.0mm			HB
Temperature Index			
RTI, Electrical	UL 746B	°C	
0.8mm			50
1.5mm			110
3.0mm			110
RTI, Impact	UL 746B	°C	
0.8mm			50
1.5mm			85
3.0mm			90
Temperature Index			
RTI, Strength	UL 746B	°C	
0.8mm			50
1.5mm			90
3.0mm			95
Other			
Density	ISO 1183	kg/m^3 (g/cm^3)	1420 (1.42)
Molding Shrinkage	ISO 294-4	%	
Normal, 2.0mm			2.0
Parallel, 2.0mm			1.9

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Property	Test Method	Units	Value
Processing			
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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Test temperatures are 23°C unless otherwise stated.

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