

DuPont™ Delrin®

acetal resin

PRELIMINARY DATA

Delrin® 300PE NC010

Delrin® 300PE NC010 is a medium-high viscosity acetal homopolymer for injection molding. Delrin® 300PE is formulated for low emissions.

Property	Test Method	Units	Value
Identification			
Resin Identification	ISO 1043		POM
Part Marking Code	ISO 11469		>POM<
Mechanical			
Yield Stress	ISO 527	MPa (kpsi)	70 (10.1)
Yield Strain	ISO 527	%	18
Nominal Strain at Break	ISO 527	%	35
Tensile Modulus	ISO 527	MPa (kpsi)	3000 (435)
Flexural Modulus	ISO 178	MPa (kpsi)	2900 (420)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²	
-30°C (-22°F)			8
23°C (73°F)			11

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.

The above data are preliminary and are subject to change as additional data are developed on subsequent lots.

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Property	Test Method	Units	Value
Thermal			
Deflection Temperature 0.45MPa	ISO 75-1/-2	°C (°F)	158 (316)
1.80MPa			92 (198)
Melting Temperature 10°C/min	ISO 11357-1/-3	°C (°F)	178 (350)
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)			1.1 (0.61)
55 - 100°C (130 - 212°F)			1.5 (0.83)
CLTE, Normal -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)			1.1 (0.61)
55 - 100°C (130 - 212°F)			1.6 (0.89)
Rheological			
Melt Mass-Flow Rate 190°C, 2.16kg	ISO 1133	g/10 min	7
Other			
Density	ISO 1183	kg/m ³ (g/cm ³)	1420 (1.42)
Water Absorption Equilibrium 50%RH	ISO 62, Similar to	%	0.3
Immersion 24h			0.6
Saturation, immersed			1.4
Molding Shrinkage Normal, 2.0mm	ISO 294-4	%	1.9
Parallel, 2.0mm			2.0

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Property	Test Method	Units	Value
Processing - Injection Molding			
Melt Temperature Range		°C (°F)	200-210 (390-410)
Melt Temperature Optimum		°C (°F)	205 (400)
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)	80-100 (12-15)

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