Delrin®

acetal resin

Delrin® 511P NC010

Delrin® 511P NC010 is a new grade with the improved stability of Delrin® 500P with modifications for more precise moulding (reduced warpage, less shrinkage, fewer voids). Delrin® 511P NC010 has higher tensile strength and flexural modulus than Delrin® 500P.

Property	Test Method	Units	Value
Mechanical			
Yield Stress	ISO 527-1/-2	MPa	73
Yield Strain	ISO 527-1/-2	%	12
Nominal Strain at Break	ISO 527-1/-2	%	25
Strain at Break	ISO 527-1/-2	%	40
Tensile Modulus	ISO 527-1/-2	MPa	3400
Tensile Creep Modulus	ISO 899	MPa	
1h			3000
1000h			1700
Notched Izod Impact	ISO 180/1A	kJ/m2	
-40C			8
23C			8
Notched Charpy Impact	ISO 179/1eA	kJ/m2	
-30C			7
23C			8
Unnotched Charpy Impact	ISO 179/1eU	kJ/m2	
-30C			260
23C			260
Thermal			
Deflection Temperature	ISO 75-1/-2	°C	
0.45MPa			165
1.80MPa			110
1.80MPa, Annealed			115
Melting Temperature	ISO 3146C	°C	178
Vicat Softening Temperature	ISO 306	°C	
50N			160

Contact DuPont for MSDS, general guides and/or additional information about ventilation, handling, purging, drying, etc.

Mechanical properties measured at 23°C (73°F) unless otherwise stated.

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Property	Test Method	Units	Value
Flow			
Melt Flow Rate	ISO 1133	g/10 min	
190C, 2.16kg			14
Electrical			
CTI	IEC 60112	V	
1mm			600
Flammability			
Limited Oxygen Index	ISO 4589	%	22
Other			
Density	ISO 1183	kg/m3	1420
Hardness, Rockwell	ISO 2039/2		R120
Humidity Absorption	ISO 62, Similar to	%	
Equilibrium 50%RH			0.2
Water Absorption	ISO 62, Similar to	%	
Saturation, immersed			0.9
Processing			
Melt Temperature Range		°C	210-220
Melt Temperature Optimum		°C	215
Drying Time, Dehumidified Dryer		h	2-4
Drying Temperature		°C	80
Processing Moisture Content		%	<0.2
Hold Pressure Range		MPa	80-100

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