



# Delrin®

acetal resin

## Delrin® 500CL NC010

### Chemically Lubricated, Medium Viscosity Acetal

Delrin® 500CL is a medium viscosity grade containing a chemical lubricant, designed for low wear and friction against metals.

Property	Test Method	Units	Value
<b>Mechanical</b>			
Tensile Strength at Yield 5mm/min (0.2in/min)	ASTM D 638	MPa (kpsi)	65 (9.5)
Elongation at Break 5mm/min (0.2in/min)	ASTM D 638	%	40
Elongation at Yield 5mm/min (0.2in/min)	ASTM D 638	%	14
Tensile Modulus 5mm/min (0.2in/min)	ASTM D 638	MPa (kpsi)	3250 (470)
Flexural Modulus	ASTM D 790	MPa (kpsi)	3000 (435)
Flexural Stress	ASTM D 790	MPa (kpsi)	
Strain 5%			90 (13)
Izod Impact	ASTM D 256	J/m (ft lb/in)	70 (1.3)
Unnotched Impact	ASTM D 4812	J/m (ft lb/in)	2610 (48.8)
<b>Thermal</b>			
Heat Deflection Temperature 0.45MPa (66psi), Not Annealed	ASTM D 648	°C (°F)	166 (331)
1.8MPa (264psi), Not Annealed			105 (221)
CLTE, Flow 23 - 55C (73 - 130F)	ASTM E 831	E-4/K (E-4/F)	1.12 (0.63)
CLTE, Transverse 23 - 55C (73 - 130F)	ASTM E 831	E-4/K (E-4/F)	1.14 (0.64)
Melting Point	ASTM D 3418	°C (°F)	178 (352)
<b>Flow</b>			
Melt Flow Rate 1.05kg at 190C	ASTM D 1238	g/10 min	7

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
<b>Electrical</b>			
Surface Resistivity	ASTM D 257	ohm	6 E15
Volume Resistivity	ASTM D 257	ohm cm	4 E15
Dielectric Strength, Short Time 3.2mm (0.126in)	ASTM D 149	kV/mm (V/mil)	17.3 (440)
Dielectric Constant 1E6 Hz	ASTM D 150		3.6
Dissipation Factor 1E6 Hz	ASTM D 150		0.007
<b>Flammability</b>			
UL94 Rating at Min. Thickness			HB
UL94 Min. Thickness Tested		mm (in)	0.75 (0.03)
<b>Other</b>			
Specific Gravity	ASTM D 792		1.42
Water Absorption Equilibrium 50%RH	ASTM D 570	%	0.24
Immersion 24hr			0.27
Saturation			1.0
Mold Shrinkage	ASTM D 955	%	
Flow, 24hrs, 3.2mm (0.126in)			1.7-2.0
Transverse, 24hrs, 3.2mm (0.126in)			1.8-2.1
<b>Processing</b>			
Melt Temperature Range		°C (°F)	210-220 (410-430)
Mold Temperature Range		°C (°F)	80-100 (175-210)
Processing Moisture Content		%	<0.2

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