

## DELTRIN 300CP NC010

Delrin USA, LLC - Acetal (POM) Homopolymer

### General Information

#### General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Additive	• Mold Release
Features	• Good Mold Release • Good Thermal Stability • Medium-high Viscosity • Good Processability • Homopolymer
RoHS Compliance	• Contact Manufacturer
Part Marking Code (ISO 11469)	• >POM<
Resin ID (ISO 1043)	• POM

### Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density	1.42	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	7.0	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	6.0	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.8	%	
Flow	2.1	%	
Water Absorption (Saturation, 73°F, 0.0787 in)	0.90	%	ISO 62
Water Absorption (Equilibrium, 73°F, 0.0787 in, 50% RH)	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	450000	psi	ISO 527-1
Tensile Stress (Yield)	10300	psi	ISO 527-2
Tensile Strain (Yield)	23	%	ISO 527-2
Nominal Tensile Strain at Break	40	%	ISO 527-2
Flexural Modulus	435000	psi	ISO 178
Shear Modulus	162000	psi	ISO 6721
Poisson's Ratio	0.37		
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	4.8	ft·lb/in <sup>2</sup>	
73°F	5.0	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	160	ft·lb/in <sup>2</sup>	
73°F	No Break		
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	329	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	207	°F	ISO 75-2/A
Melting Temperature <sup>2</sup>	352	°F	ISO 11357-3
CLTE - Flow	6.1E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	6.1E-5	in/in/°F	ISO 11359-2
Annealing Temperature	320	°F	
Annealing Time - Optional	30.0	min/mm	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 62631-3-2
Volume Resistivity	> 1.0E+13	ohms·m	IEC 62631-3-1



Relative Permittivity		IEC 62631-2-1
100 Hz	3.80	
1 MHz	3.50	
Dissipation Factor (1 MHz)	5.6E-3	IEC 62631-2-1
Comparative Tracking Index	600 V	IEC 60112
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>
Burning Rate <sup>3</sup> (0.0394 in)	< 3.1	in/min
FMVSS Flammability	B	FMVSS 302
<b>Fill Analysis</b>	<b>Nominal Value</b>	<b>Unit</b>
Melt Density	1.16	g/cm <sup>3</sup>
Ejection Temperature	275	°F
<b>Additional Information</b>	<b>Nominal Value</b>	<b>Unit</b>
Emission	< 8	ppm
		VDA 275

### Processing Information

	Nominal Value	Unit
<b>Injection</b>		
Drying Temperature	176	°F
Drying Time - Desiccant Dryer	2.0 to 4.0	hr
Suggested Max Moisture	< 0.20	%
Processing (Melt) Temp	410 to 428	°F
Melt Temperature, Optimum	419	°F
Mold Temperature	176 to 212	°F
Mold Temperature, Optimum	194	°F
Holding Pressure	11600 to 14500	psi
Drying Recommended	yes	
Hold Pressure Time	8.00	s/mm
Maximum Screw Tangential Speed	472	in/min

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 10°C/min

<sup>3</sup> FMVSS 302

