

**DELTRIN 100STE 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	• Impact Modifier • Mold Release
Features	• Good Mold Release • High Viscosity • Impact Modified • High Toughness • Homopolymer • Low VOC
Uses	• Automotive Applications
RoHS Compliance	• Contact Manufacturer
Part Marking Code (ISO 11469)	• >POM-HI<
Resin ID (ISO 1043)	• POM-HI

 Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density	1.33	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	2.0	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	1.7	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage <sup>2</sup>			ISO 294-4
Across Flow	1.1	%	
Flow	0.80	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	189000	psi	ISO 527-1
Tensile Stress (Yield)	6240	psi	ISO 527-2
Tensile Strain (Yield)	35	%	ISO 527-2
Nominal Tensile Strain at Break	> 50	%	ISO 527-2
Flexural Modulus	181000	psi	ISO 178
Flexural Stress (3.5% Strain)	5080	psi	ISO 178
Poisson's Ratio	0.44		
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	8.1	ft·lb/in <sup>2</sup>	
73°F	43	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	No Break		
73°F	No Break		
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ISO 2039-2
M-Scale	19		
R-Scale	102		
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	232	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	142	°F	ISO 75-2/A
Vicat Softening Temperature	338	°F	ISO 306/A50
Melting Temperature <sup>3</sup>	352	°F	ISO 11357-3
CLTE - Flow	6.7E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	7.2E-5	in/in/°F	ISO 11359-2
Annealing Temperature	320	°F	



Annealing Time - Optional		30.0 min/mm	
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Burning Rate <sup>4</sup> (0.0394 in)	1.9	in/min	ISO 3795
FMVSS Flammability	B		FMVSS 302
<b>Fill Analysis</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Melt Density	1.14	g/cm <sup>3</sup>	
<b>Additional Information</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Emission	< 2	ppm	VDA 275

### Processing Information

<b>Injection</b>		<b>Nominal Value</b>	<b>Unit</b>
Drying Temperature		176	°F
Drying Time - Desiccant Dryer		4.0 to 8.0	hr
Suggested Max Moisture		< 0.050	%
Processing (Melt) Temp		392 to 410	°F
Melt Temperature, Optimum		401	°F
Mold Temperature		104 to 140	°F
Mold Temperature, Optimum		122	°F
Holding Pressure		8700 to 11600	psi
Drying Recommended		yes	
Hold Pressure Time		7.50	s/mm
Maximum Screw Tangential Speed		472	in/min
<b>Extrusion</b>		<b>Nominal Value</b>	<b>Unit</b>
Drying Temperature		167 to 185	°F
Drying Time		2.0 to 4.0	hr
Suggested Max Moisture		< 0.050	%
Melt Temperature		383 to 401	°F
Extrusion Melt Temperature, Optimum		392	°F

### Notes

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

<sup>2</sup> Derived from Similar Grade

<sup>3</sup> 10°C/min

<sup>4</sup> FMVSS 302

