

**DELTRIN FG100AL NC010**

Delrin USA, LLC - Acetal (POM) Homopolymer

**General Information**

General	
Material Status	<ul style="list-style-type: none"> <li>Commercial: Active</li> </ul>
Availability	<ul style="list-style-type: none"> <li>Africa &amp; Middle East</li> <li>Asia Pacific</li> <li>Europe</li> <li>Latin America</li> <li>North America</li> </ul>
Additive	<ul style="list-style-type: none"> <li>Lubricant</li> <li>Mold Release</li> </ul>
Features	<ul style="list-style-type: none"> <li>Food Contact Acceptable</li> <li>Good Mold Release</li> <li>High Viscosity</li> <li>Homopolymer</li> <li>Low Friction</li> <li>Lubricated</li> <li>Wear Resistant</li> </ul>
Uses	<ul style="list-style-type: none"> <li>Non-specific Food Applications</li> </ul>
RoHS Compliance	<ul style="list-style-type: none"> <li>Contact Manufacturer</li> </ul>
Forms	<ul style="list-style-type: none"> <li>Pellets</li> </ul>
Part Marking Code (ISO 11469)	<ul style="list-style-type: none"> <li>POM-S</li> </ul>
Resin ID (ISO 1043)	<ul style="list-style-type: none"> <li>POM-S</li> </ul>

**Properties <sup>1</sup>**

Physical	Nominal Value	Unit	Test Method
Density	1.40	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	2.5	g/10 min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.8	%	
Flow	2.0	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	435000	psi	ISO 527-1
Tensile Stress (Yield)	10200	psi	ISO 527-2
Tensile Strain (Yield)	18	%	ISO 527-2
Nominal Tensile Strain at Break	45	%	ISO 527-2
Flexural Modulus	406000	psi	ISO 178
Poisson's Ratio	0.37		
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	3.3	ft·lb/in <sup>2</sup>	
73°F	4.3	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	81	ft·lb/in <sup>2</sup>	
73°F	120	ft·lb/in <sup>2</sup>	
Notched Izod Impact Strength (73°F)	3.8	ft·lb/in <sup>2</sup>	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	325	°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
RTI Elec			UL 746B
0.030 in	122	°F	
0.12 in	122	°F	
RTI Imp			UL 746B
0.030 in	122	°F	



0.12 in	122 °F	
RTI Str		UL 746B
0.030 in	122 °F	
0.12 in	122 °F	
<b>Flammability</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Burning Rate <sup>3</sup> (0.0394 in)	1.0 in/min	ISO 3795
Flame Rating		UL 94
0.030 in	HB	
0.06 in	HB	
Flammability Classification		IEC 60695-11-10, -20
0.030 in	HB	
0.06 in	HB	
FMVSS Flammability	B	FMVSS 302
<b>Additional Information</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Fogging - G-value (condensate)	0.10 mg	ISO 6452

### 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	13100 to 16000	psi
Drying Recommended	yes	
Hold Pressure Time	8.00	s/mm
<b>Extrusion</b>		
Drying Temperature	167 to 185	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	< 0.20	%
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> 10°C/min

<sup>3</sup> FMVSS 302

