

## DELTRIN 900P 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	• General Purpose	• Good Thermal Stability	• Low Viscosity
	• Good Processability	• Homopolymer	• Low VOC
Uses	• General Purpose		
RoHS Compliance	• Contact Manufacturer		
Automotive Specifications	• FORD WSK-M4D637-A3	• GM GMP.POM.009	• STELLANTIS MS-DB-100 CPN2036
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)	25	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	21	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.9	%	
Flow	1.9	%	
Water Absorption (Saturation, 73°F, 0.0787 in)	1.4	%	ISO 62
Water Absorption (Equilibrium, 73°F, 0.0787 in, 50% RH)	0.40	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	464000	psi	ISO 527-1
Tensile Stress (Yield)	10300	psi	ISO 527-2
Tensile Strain (Yield)	12	%	ISO 527-2
Nominal Tensile Strain at Break	23	%	ISO 527-2
Tensile Creep Modulus (1 hr)	406000	psi	ISO 899-1
Tensile Creep Modulus (1000 hr)	218000	psi	ISO 899-1
Flexural Modulus	435000	psi	ISO 178
Poisson's Ratio	0.37		
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	3.1	ft·lb/in <sup>2</sup>	
73°F	3.6	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	95	ft·lb/in <sup>2</sup>	
73°F	95	ft·lb/in <sup>2</sup>	
Notched Izod Impact Strength			ISO 180/1A
-40°F	3.8	ft·lb/in <sup>2</sup>	
73°F	3.3	ft·lb/in <sup>2</sup>	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ISO 2039-2
M-Scale	92		
R-Scale	120		
Ball Indentation Hardness (H 961/30)	24700	psi	ISO 2039-1



<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load (66 psi, Unannealed)	324	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	201	°F	ISO 75-2/A
Vicat Softening Temperature	320	°F	ISO 306/B50
Melting Temperature <sup>2</sup>	352	°F	ISO 11357-3
CLTE - Flow	6.7E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	6.7E-5	in/in/°F	ISO 11359-2
RTI Elec			UL 746B
0.030 in	122	°F	
0.06 in	230	°F	
0.12 in	230	°F	
RTI Imp			UL 746B
0.030 in	122	°F	
0.06 in	185	°F	
0.12 in	194	°F	
RTI Str			UL 746B
0.030 in	122	°F	
0.06 in	194	°F	
0.12 in	203	°F	
Annealing Temperature	320	°F	
Annealing Time - Optional	30.0	min/mm	
Effective Thermal Diffusivity	1.24E-10	in <sup>2</sup> /s	
<b>Electrical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Surface Resistivity	> 1.0E+15	ohms	IEC 62631-3-2
Volume Resistivity	1.0E+12	ohms·m	IEC 62631-3-1
Relative Permittivity			IEC 62631-2-1
100 Hz	3.80		
1 MHz	3.80		
Dissipation Factor (1 MHz)	5.0E-3		IEC 62631-2-1
Comparative Tracking Index	600	V	IEC 60112
Hot-wire Ignition (HWI) (0.0295 in)	8.0	sec	UL 746A
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Burning Rate <sup>3</sup> (0.0394 in)	1.5	in/min	ISO 3795
Flame Rating			UL 94
0.031 in	HB		
0.06 in	HB		
Flammability Classification			IEC 60695-11-10, -20
0.03 in	HB		
0.06 in	HB		
Glow Wire Flammability Index			IEC 60695-2-12
0.04 in	1020	°F	
0.08 in	1020	°F	
0.12 in	1020	°F	
Oxygen Index	23	%	ISO 4589-2
FMVSS Flammability	B		FMVSS 302
<b>Additional Information</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Emission	< 8	ppm	VDA 275
Fogging			ISO 6452
F-value (refraction)	95	%	
G-value (condensate)	0.20	mg	

### Processing Information

<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</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
Temperature, Optimum	419	°F
Temperature	176 to 212	°F
Temperature, Optimum	194	°F
Pressure	11600 to 14500	psi
Recommended	yes	

Hold Pressure Time	8.00 s/mm
Maximum Screw Tangential Speed	709 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

