DELRIN 300TE NC010

Delrin USA, LLC - *Acetal (POM) Homopolymer*

General Information

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Impact Modifier	• Mold Release	
Features	• Good Mold Release • Homopolymer	• Impact Modified • Low VOC	• Medium-high Viscosity
Uses	• Automotive Applications		
RoHS Compliance	• Contact Manufacturer		
Part Marking Code (ISO 11469)	• >POM-I<		
Resin ID (ISO 1043)	• POM-I		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.38	g/cm³	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	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.5	%	
Flow	1.3	%	
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	276000	psi	ISO 527-1
Tensile Stress (Yield)	7690	psi	ISO 527-2
Tensile Strain (Yield)	20	%	ISO 527-2
Nominal Tensile Strain at Break	36	%	ISO 527-2
Flexural Modulus	276000	psi	ISO 178
Flexural Stress (3.5% Strain)	8120	psi	ISO 178
Poisson's Ratio	0.41		
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	4.8	ft·lb/in²	
73°F	7.6	ft·lb/in²	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness			ISO 2039-2
M-Scale	69		
R-Scale	116		
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	270	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	160	°F	ISO 75-2/A
Vicat Softening Temperature	342	°F	ISO 306/A50
Melting Temperature [2]	352	°F	ISO 11357-3
CLTE - Flow	6.7E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	6.9E-5	in/in/°F	ISO 11359-2
Annealing Temperature	320	°F	
Annealing Time - Optional	30.0	min/mm	

Flammability	Nominal Value	Unit	Test Method
Burning Rate [3] (0.0394 in)	2.0	in/min	ISO 3795
FMVSS Flammability	B		FMVSS 302
Fill Analysis	**Nominal Value**	**Unit**	**Test Method**
Melt Density	1.15	g/cm³	
Ejection Temperature	239	°F	
Specific Heat Capacity of Melt	0.688	Btu/lb/°F	
Thermal Conductivity of Melt	1.5	Btu·in/hr/ft²/°F	ISO 22007-2
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Emission	< 2	ppm	VDA 275

Processing Information

Injection	Nominal Value	Unit
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
Extrusion	**Nominal Value**	**Unit**
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

[1] Typical properties: these are not to be construed as specifications.

[2] 10°C/min

[3] FMVSS 302