

DELTRIN 51HSE 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	• Nucleating Agent		
Features	• Creep Resistant	• Homopolymer	• Nucleated
	• High Viscosity	• Low Emissions	
Uses	• Automotive Applications		
RoHS Compliance	• Contact Manufacturer		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.42	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.2	g/10 min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.8	%	
Across Flow ²	2.3	%	
Flow	2.3	%	
Flow ²	3.0	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	435000	psi	ISO 527-1
Tensile Stress (Yield)	10600	psi	ISO 527-2
Tensile Stress (Break)	10300	psi	ISO 527-2
Tensile Strain (Yield)	26	%	ISO 527-2
Tensile Strain (Break)	> 50	%	ISO 527-2
Nominal Tensile Strain at Break	36	%	ISO 527-2
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 ²	
73°F	3.8	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	140	ft·lb/in ²	
73°F	No Break		
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	210	°F	ISO 75-2/A
Melting Temperature ³	352	°F	ISO 11357-3
Annealing Temperature	320	°F	
Annealing Time	30.0	min/mm	
Flammability	Nominal Value	Unit	Test Method
Burning Rate ⁴ (0.0394 in)	< 3.1	in/min	ISO 3795
FMVSS Flammability	B		FMVSS 302
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	2.0 to 4.0 hr
Suggested Max Moisture	< 0.20 %
Processing (Melt) Temp	401 to 419 °F
Melt Temperature, Optimum	410 °F
Mold Temperature	176 to 248 °F
Mold Temperature, Optimum	212 °F
Holding Pressure	13100 to 16000 psi
Drying Recommended	yes
Hold Pressure Time	8.00 s/mm

Notes

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

² Annealed

³ 10°C/min

⁴ FMVSS 302

