

VALOX™ 337 resin

Polybutylene Terephthalate

SABIC Innovative Plastics

Message:

Low temperature impact PBT. Automotive applications: underhood power distribution boxes and covers.

General Information	
Features	Low Temperature Impact Resistance
Uses	Automotive Applications
	Automotive Under the Hood
Processing Method	Injection Molding
Multi-Point Data	Coefficient of Thermal Expansion vs. Temperature (ASTM E831)
	Flexural DMA (ASTM D4065)
	Pressure-Volume-Temperature (PVT - Zoller Method)
	Shear DMA (ASTM D4065)
	Tensile Creep (ASTM D2990)
	Tensile Fatigue
	Tensile Stress vs. Strain (ASTM D638)
	Thermal Conductivity vs. Temperature (ASTM E1530)

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.22	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (250°C/5.0 kg)	13	g/10 min	ASTM D1238
Molding Shrinkage			Internal Method
Flow : 3.20 mm	2.4 to 2.7	%	
Across Flow : 3.20 mm	2.4 to 2.7	%	
Water Absorption (24 hr)	0.10	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ¹ (Yield)	39.3	MPa	ASTM D638
Tensile Elongation ² (Yield)	3.9	%	ASTM D638
Flexural Modulus ³ (50.0 mm Span)	1790	MPa	ASTM D790
Flexural Strength ⁴ (Yield, 50.0 mm Span)	56.5	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-30°C	800	J/m	
23°C	870	J/m	
Unnotched Izod Impact			ASTM D4812
-30°C	3200	J/m	
23°C	3200	J/m	

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 6.40 mm	98.9	°C	
1.8 MPa, Unannealed, 6.40 mm	47.2	°C	
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity	1250	Pa·s	Internal Method
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	3.0 to 4.0	hr	
Drying Time, Maximum	12	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 to 80	%	
Rear Temperature	232 to 249	°C	
Middle Temperature	238 to 254	°C	
Front Temperature	243 to 260	°C	
Nozzle Temperature	238 to 254	°C	
Processing (Melt) Temp	243 to 260	°C	
Mold Temperature	48.9 to 76.7	°C	
Back Pressure	0.345 to 0.689	MPa	
Screw Speed	50 to 100	rpm	
Vent Depth	0.013 to 0.025	mm	
NOTE			
1.	Type I, 50 mm/min		
2.	Type I, 50 mm/min		
3.	1.3 mm/min		
4.	1.3 mm/min		

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