

VALOX™ 364 resin

Polybutylene Terephthalate

SABIC Innovative Plastics

Message:

Designed for outdoor telecommunications enclosure applications.

General Information			
UL YellowCard	E207780-548318		
Uses	Outdoor application		
	Communication Equipment		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.31	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (266°C/5.0 kg)	19	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (265°C/5.0 kg)	17.0	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal method
Flow: 3.20mm	1.1	%	Internal method
Transverse flow: 3.20mm	1.0	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.090	%	ISO 62
Equilibrium, 23°C, 50% RH	0.030	%	ISO 62
Outdoor Suitability	f2	UL 746C	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	1960	MPa	ASTM D638
--	1950	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	45.0	MPa	ASTM D638
Yield	46.0	MPa	ISO 527-2/50
Fracture ³	36.0	MPa	ASTM D638
Fracture	36.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	4.0	%	ASTM D638
Yield	4.0	%	ISO 527-2/50
Fracture ⁵	39	%	ASTM D638
Fracture	36	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ⁶	1770	MPa	ASTM D790

-- ⁷	1830	MPa	ISO 178
Flexural Stress			
--	69.0	MPa	ISO 178
Yield, 50.0mm span ⁸	67.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	51	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-40°C	430	J/m	ASTM D256
-20°C	690	J/m	ASTM D256
23°C	720	J/m	ASTM D256
-30°C ¹⁰	17	kJ/m ²	ISO 180/1A
23°C ¹¹	51	kJ/m ²	ISO 180/1A
Instrumented Dart Impact			ASTM D3763
-40°C, Total Energy	47.0	J	ASTM D3763
-20°C, Total Energy	45.0	J	ASTM D3763
23°C, Total Energy	47.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	103	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	65.0	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ¹²	74.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	115	°C	ASTM D1525 ¹³
--	119	°C	ISO 306/B50
--	122	°C	ISO 306/B120
Linear thermal expansion coefficient			
Flow: -40 to 40°C	9.5E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Lateral: -40 to 40°C	9.8E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	1.0E-4	cm/cm/°C	ISO 11359-2
RTI Elec	75.0	°C	UL 746
RTI Imp	75.0	°C	UL 746
RTI	75.0	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Arc Resistance ¹⁴	PLC 5		ASTM D495
Comparative Tracking Index (CTI)	PLC 0		UL 746
High Amp Arc Ignition (HAI)	PLC 0		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 2		UL 746
Hot-wire Ignition (HWI)	PLC 2		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.47 mm	V-0		UL 94
3.00 mm	5VA		UL 94

Oxygen Index	28	%	ASTM D2863
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	3.0 - 4.0	hr	
Drying Time, Maximum	12	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 - 80	%	
Rear Temperature	238 - 254	°C	
Middle Temperature	243 - 260	°C	
Front Temperature	249 - 266	°C	
Nozzle Temperature	243 - 260	°C	
Processing (Melt) Temp	249 - 266	°C	
Mold Temperature	48.9 - 76.7	°C	
Back Pressure	0.345 - 0.689	MPa	
Screw Speed	50 - 100	rpm	
Vent Depth	0.025 - 0.038	mm	

NOTE

1. 5.0 mm/min
2. Type 1, 50mm/min
3. Type 1, 50mm/min
4. Type 1, 50mm/min
5. Type 1, 50mm/min
6. 1.3 mm/min
7. 2.0 mm/min
8. 1.3 mm/min
9. 80*10*4 sp=62mm
10. 80*10*4
11. 80*10*4
12. 80*10*4 mm
13. 标准 B (120°C/h), 载荷2 (50N)
14. Tungsten electrode

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