

VALOX™ V2000DM resin

Polybutylene Terephthalate

SABIC Innovative Plastics

Message:

Unreinforced, directly metallizable PBT injection molding resin with high flow better release characteristics.

General Information			
Features	Good Mold Release		
	High Flow		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.32	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	35	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	34.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	2.1 to 2.4	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.080	%	
Equilibrium, 23°C, 50% RH	0.34	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2810	MPa	ASTM D638
--	3000	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	59.0	MPa	ASTM D638
Yield	59.0	MPa	ISO 527-2/50
Break ³	40.0	MPa	ASTM D638
Break	55.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	20	%	ASTM D638
Yield	7.0	%	ISO 527-2/50
Break ⁵	100	%	ASTM D638
Break	15	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁶	2570	MPa	ASTM D790
-- ⁷	2500	MPa	ISO 178
Flexural Strength ⁸ (Yield, 50.0 mm Span)	90.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	5.0	kJ/m ²	ISO 179/1eA

Notched Izod Impact			
23°C	46	J/m	ASTM D256
-30°C ¹⁰	2.0	kJ/m ²	ISO 180/1A
23°C ¹¹	5.0	kJ/m ²	ISO 180/1A
Unnotched Izod Impact (-30°C)	No Break		ASTM D4812
Instrumented Dart Impact (23°C, Total Energy)	54.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 3.20 mm	54.0	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹²	53.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	185	°C	ASTM D1525, ISO 306/B120 9 ¹³
--	186	°C	ISO 306/B50
CLTE			
Flow : -40 to 40°C	8.4E-5	cm/cm/°C	
Transverse : -40 to 40°C	8.0E-5	cm/cm/°C	
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.	5.0 mm/min		
2.	Type I, 50 mm/min		
3.	Type I, 50 mm/min		
4.	Type I, 50 mm/min		
5.	Type I, 50 mm/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.	Rate B (120°C/h), Loading 2 (50 N)

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