

VALOX™ 830F resin

Polybutylene Terephthalate + PET
SABIC Innovative Plastics Asia Pacific

Message:
PBT+PET, 30% Glass, Mold Release, Heat Stabilized, For foodcontact applications

General Information			
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Additive	Heat Stabilizer		
	Mold Release		
Features	Food Contact Acceptable		
	Heat Stabilized		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.54	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (265°C/2.16 kg)	18	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	13.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.30 to 0.80	%	Internal Method
Water Absorption			ASTM D570, ISO 62
Saturation, 23°C	0.15	%	
Equilibrium, 23°C, 50% RH	0.060	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	8000	MPa	ASTM D638
--	9000	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	100	MPa	ASTM D638
Yield	140	MPa	ISO 527-2/5
Break ³	105	MPa	ASTM D638
Break	140	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	2.5	%	ASTM D638
Yield	2.5	%	ISO 527-2/5
Break ⁵	2.5	%	ASTM D638
Break	2.5	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁶	7000	MPa	ASTM D790

-- ⁷	8000	MPa	ISO 178
Flexural Stress			
--	200	MPa	ISO 178
Yield, 50.0 mm Span ⁸	170	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	9.0	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	70	J/m	ASTM D256
23°C	80	J/m	ASTM D256
-30°C ¹⁰	8.0	kJ/m ²	ISO 180/1A
23°C ¹¹	9.0	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	7.00	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 3.20 mm	195	°C	ASTM D648
1.8 MPa, Unannealed, 100 mm Span ¹²	202	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	200	°C	ASTM D1525, ISO 306/B50 10 ¹³
--	205	°C	ISO 306/B120
CLTE			
Flow : -40 to 40°C	2.5E-5	cm/cm/°C	ASTM E831
Flow : 23 to 80°C	2.5E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	8.0E-5	cm/cm/°C	ASTM E831
Transverse : 23 to 80°C	8.1E-5	cm/cm/°C	ISO 11359-2
Injection	Nominal Value	Unit	
Drying Temperature	110 to 120	°C	
Drying Time	4.0 to 6.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	40.0 to 60.0	°C	
Rear Temperature	240 to 260	°C	
Middle Temperature	255 to 280	°C	
Front Temperature	260 to 280	°C	
Nozzle Temperature	265 to 275	°C	
Processing (Melt) Temp	260 to 285	°C	
Mold Temperature	60.0 to 110	°C	
NOTE			
1.	5.0 mm/min		
2.	Type I, 5.0 mm/min		
3.	Type I, 5.0 mm/min		
4.	Type I, 5.0 mm/min		
5.	Type I, 5.0 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.	120*10*4 mm
13.	Rate B (120°C/h), Loading 2 (50 N)

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