

VALOX™ 830F resin

Polybutylene Terephthalate + PET

SABIC Innovative Plastics Europe

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		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.54	g/cm³	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	cm³/10min	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 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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