

Bayblend® T90 MF-20

Covestro - Polycarbonates - *Polycarbonate + SAN*

General Information

Product Description

Rubber modified (PC+SAN) blend; 20 % mineral filled; Vicat/B 120 temperature = 130°C; very good flow; reduced coefficient of thermal expansion; tensile modulus = 4900 MPa; good heat resistance

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Mineral, 20% Filler by Weight
Features	• Good Flow • High Heat Resistance • Low CLTE
RoHS Compliance	• RoHS Compliant
ISO Designation	• PC+SAN-I-TD20

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.29	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	12	cm ³ /10min	ISO 1133
Molding Shrinkage ²			ISO 2577
Across Flow : 500°F, 0.118 in	0.25 to 0.45	%	
Flow : 500°F, 0.118 in	0.30 to 0.50	%	
Water Absorption (Saturation, 73°F)	0.50	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	711000	psi	ISO 527-1/1
Tensile Stress (Yield, 73°F)	8700	psi	ISO 527-2/50
Tensile Stress (Break, 73°F)	7250	psi	ISO 527-2/50
Tensile Strain (Yield, 73°F)	3.2	%	ISO 527-2/50
Tensile Strain (Break, 73°F)	9.0	%	ISO 527-2/50
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength			ISO 180/A
-22°F	2.9	ft·lb/in ²	
73°F	9.5	ft·lb/in ²	
Unnotched Izod Impact Strength			ISO 180
-22°F	24	ft·lb/in ²	
73°F	33	ft·lb/in ²	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	261	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	232	°F	ISO 75-2/A
Vicat Softening Temperature			
--	266	°F	ISO 306/B120
--	262	°F	ISO 306/B50
CLTE - Flow (73 to 131°F)	2.2E-5	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	3.1E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+16	ohms	IEC 60093
Volume Resistivity (73°F)	1.0E+16	ohms·cm	IEC 60093
Electric Strength (73°F, 0.0394 in)	890	V/mil	IEC 60243-1
Relative Permittivity			IEC 60250



73°F, 100 Hz	3.30	
73°F, 1 MHz	3.20	
Dissipation Factor		IEC 60250
73°F, 100 Hz	1.5E-3	
73°F, 1 MHz	3.2E-3	
Comparative Tracking Index (Solution A)	225 V	IEC 60112
Flammability	Nominal Value	Unit
Flame Rating (0.03 in)	HB	UL 94
Fill Analysis	Nominal Value	Unit
Melt Viscosity ³ (500°F)	240 Pa·s	ISO 11443-A

Processing Information

Injection	Nominal Value	Unit
Drying Temperature - Dry Air Dryer	203 to 230	°F
Drying Time - Dry Air Dryer	4.0	hr
Suggested Max Moisture	< 0.020	%
Suggested Shot Size	30 to 70	%
Rear Temperature	446 to 464	°F
Middle Temperature	455 to 473	°F
Front Temperature	464 to 518	°F
Nozzle Temperature	509 to 527	°F
Processing (Melt) Temp	500 to 536	°F
Mold Temperature	158 to 194	°F
Back Pressure	725 to 2180	psi
Vent Depth	9.8E-4 to 3.0E-3	in

Injection Notes

Peripheral Screw Speed: 0.05 - 0.2 m/s
Standard Melt Temperature: 270°C
Hold Pressure (% of Injection Pressure): 50 - 75%

Notes

¹ Typical properties: these are not to be construed as specifications.

² 150x105x3mm., MT 80°C

³ 1000s-1

