VALOX™ 830 resin

Polybutylene Terephthalate

SABIC Innovative Plastics

Message:

30% GR PBTP, excellent surface finish. Typical applications are hot air gun housing assemblies, industrial glue guns, appliance housings and handles.

General Information	
UL YellowCard	E121562-220851
Filler / Reinforcement	Glass Fiber,30% Filler by Weight
Features	Good Surface Finish
Uses	Appliance Components Handles Housings
Processing Method	Injection Molding
Multi-Point Data	Coefficient of Thermal Expansion vs. Temperature (ASTM E831) Elastic Modulus vs Temperature (ASTM D4065) Flexural DMA (ASTM D4065) Shear DMA (ASTM D4065) Tensile Creep (ASTM D2990) Thermal Conductivity vs. Temperature (ASTM E1530)

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.54	g/cm³	ASTM D792
Specific Volume	0.672	cm³/g	ASTM D792
Molding Shrinkage			Internal Method
Flow [1]	0.30 to 0.50	%	
Flow [2]	0.50 to 0.80	%	
Across Flow [3]	0.40 to 0.60	%	
Across Flow [4]	0.60 to 0.90	%	
Water Absorption (24 hr)	0.060	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	119		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [5]			ASTM D638
Yield	103	MPa	
Break	107	MPa	
Flexural Modulus [6] (50.0 mm Span)	6890	MPa	ASTM D790
Flexural Strength [7] (Break, 50.0 mm Span)	172	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**

Notched Izod Impact (23°C)	80	J/m	ASTM D256
Unnotched Izod Impact (23°C)	640	J/m	ASTM D4812
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 6.40 mm	221	°C	
1.8 MPa, Unannealed, 6.40 mm	193	°C	
CLTE - Flow			ASTM E831
-40 to 40°C	2.5E-5	cm/cm/°C	
60 to 138°C	2.5E-5	cm/cm/°C	
RTI Elec	120	°C	UL 746
RTI Str	120	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	4.0E+16	ohms·cm	ASTM D257
Dielectric Strength			ASTM D149
1.60 mm, in Oil	25	kV/mm	
3.20 mm, in Air	21	kV/mm	
Dielectric Constant			ASTM D150
100 Hz	3.60		
1 MHz	3.50		
Dissipation Factor			ASTM D150
100 Hz	2.0E-3		
1 MHz	0.020		
Arc Resistance [8]	PLC 6		ASTM D495
Comparative Tracking Index (CTI)	PLC 2		UL 746
High Amp Arc Ignition (HAI)	PLC 3		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 2		UL 746
Hot-wire Ignition (HWI)	PLC 0		UL 746
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.47 mm)	HB		UL 94
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	238 to 254	°C	
Middle Temperature	243 to 260	°C	
Front Temperature	249 to 266	°C	
Nozzle Temperature	243 to 260	°C	
Processing (Melt) Temp	249 to 266	°C	
Mold Temperature	65.6 to 87.8	°C	
Back Pressure	0.345 to 0.689	MPa	

Screw Speed	50 to 80	rpm
Vent Depth	0.025 to 0.038	mm

NOTE	
1.	1.5 to 3.2 mm
2.	3.2 to 4.6 mm
3.	1.5 to 3.2 mm
4.	3.2-4.6 mm
5.	Type I, 5.0 mm/min
6.	1.3 mm/min
7.	1.3 mm/min
8.	Tungsten Electrode

Recommended distributors for this material

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