VALOX™ 430 resin

Polybutylene Terephthalate

SABIC Innovative Plastics

Message:

VALOX 430 is 33% glass reinforced, impact modified PBT injection moulding resin.

General Information			
UL YellowCard	E45329-236599		
Filler / Reinforcement	Glass fiber reinforced material, 33% filler by weight		
Additive	Impact modifier		
Features	Impact modification		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.55	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	7.00	cm³/10min	ISO 1133
Molding Shrinkage [1]			Internal method
Flow	0.30 - 0.70	%	Internal method
Transverse flow	0.50 - 1.0	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.26	%	ISO 62
Equilibrium, 23°C, 50% RH	0.050	%	ISO 62
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	125		ISO 2039-2
Ball Indentation Hardness (H 358/30)	128	MPa	ISO 2039-1
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	9100	MPa	ISO 527-2/1
Tensile Stress (Break)	125	MPa	ISO 527-2/5
Tensile Strain (Break)	3.0	%	ISO 527-2/5
Flexural Modulus [2]	8000	MPa	ISO 178
Flexural Stress	185	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [3]			ISO 179/1eA
-30°C	9.0	kJ/m²	ISO 179/1eA
23°C	11	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength [4]			ISO 179/1eU
-30°C	50	kJ/m²	ISO 179/1eU
23°C	50	kJ/m²	ISO 179/1eU
Notched Izod Impact [5]			ISO 180/1A

-40°C	10	kJ/m²	ISO 180/1A
-30°C	9.0	kJ/m²	ISO 180/1A
23°C	12	kJ/m²	ISO 180/1A
Unnotched Izod Impact Strength [6]			ISO 180/1U
-30°C	55	kJ/m²	ISO 180/1U
23°C	55	kJ/m²	ISO 180/1U
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature [7]			
0.45 MPa, unannealed, 100 mm span	225	°C	ISO 75-2/Be
1.8 MPa, unannealed, 100 mm span	205	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	222	°C	ISO 306/A50
--	215	°C	ISO 306/B50, ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 80°C	2.0E-5	cm/cm/°C	ISO 11359-2
Lateral: 23 to 80°C	1.2E-4	cm/cm/°C	ISO 11359-2
RTI Elec	130	°C	UL 746
RTI Imp	130	°C	UL 746
RTI	140	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Dielectric Strength			IEC 60243-1
0.800mm, in oil	24	kV/mm	IEC 60243-1
1.60mm, in oil	20	kV/mm	IEC 60243-1
3.20mm, in oil	14	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
50 Hz	3.60		IEC 60250
60 Hz	3.60		IEC 60250
1 MHz	3.40		IEC 60250
Dissipation Factor			IEC 60250
50 Hz	1.0E-3		IEC 60250
60 Hz	1.0E-3		IEC 60250
1 MHz	0.010		IEC 60250
Comparative Tracking Index	300	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
1.50 mm	HB		UL 94
3.00 mm	HB		UL 94
Glow Wire Flammability Index (1.00 mm)	750	°C	IEC 60695-2-12
Injection	**Nominal Value**	**Unit**	

Drying Temperature	110 - 120	°C
Drying Time	2.0 - 4.0	hr
Suggested Max Moisture	0.020	%
Hopper Temperature	40.0 - 60.0	°C
Rear Temperature	230 - 245	°C
Middle Temperature	240 - 255	°C
Front Temperature	245 - 265	°C
Nozzle Temperature	240 - 260	°C
Processing (Melt) Temp	250 - 270	°C
Mold Temperature	40.0 - 100	°C

NOTE	
1.	Tensile Bar
2.	2.0 mm/min
3.	80*10*4 sp=62mm
4.	80*10*4 sp=62mm
5.	80*10*4
6.	80*10*4
7.	120*10*4 mm

Recommended distributors for this material

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