

VALOX* 815UX Resin

Tuesday, May 29, 2012

General Information

Product Description

VALOX 815UX is a 15% glass reinforced PBT+PET blend with improved surface appearance and excellent UV performance.

General

Material Status	• Commercial: Active
Availability	• Europe
Filler / Reinforcement	• Glass Fiber Reinforcement, 15% Filler by Weight
Features	• Good Surface Finish • Good UV Resistance
RoHS Compliance	• RoHS Compliant
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.43	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (265°C/1.2 kg)	10.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow ²	0.40 to 0.80	%	Internal Method
Molding Shrinkage - Across Flow ²	0.60 to 1.0	%	Internal Method
Water Absorption (Saturation, 23°C)	0.26	%	ISO 62
Water Absorption (Equilibrium, 23°C, 50% RH)	0.060	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	5800	MPa	ISO 527-2/1
Tensile Stress (Break)	85.0	MPa	ISO 527-2/5
Tensile Strain (Break)	3.0	%	ISO 527-2/5
Flexural Modulus ³	4700	MPa	ISO 178
Flexural Strength ^{3,4}	135	MPa	ISO 178
Taber Abrasion Resistance			Internal Method
1000 Cycles, 1000 g, CS-17 Wheel	17.0	mg	

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SABIC Innovative Plastics Europe - Polybutylene Terephthalate

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁵			ISO 179/1eA
-30°C	4.0	kJ/m ²	
23°C	5.0	kJ/m ²	
Charpy Unnotched Impact Strength ⁵			ISO 179/1eU
-30°C	25	kJ/m ²	
23°C	25	kJ/m ²	
Notched Izod Impact Strength ⁶			ISO 180/1A
-30°C	5.0	kJ/m ²	
23°C	6.0	kJ/m ²	
Unnotched Izod Impact Strength ⁶			ISO 180/1U
-30°C	20	kJ/m ²	
23°C	20	kJ/m ²	
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 358/30)	101	MPa	ISO 2039-1
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁷			ISO 75-2/Be
0.45 MPa, Unannealed, 100 mm Span	215	°C	
Heat Deflection Temperature ⁷			ISO 75-2/Ae
1.8 MPa, Unannealed, 100 mm Span	175	°C	
Vicat Softening Temperature			
--	195	°C	ISO 306/A50
--	200	°C	ISO 306/B50
--	215	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE - Flow (23 to 80°C)	0.000055	cm/cm/°C	ISO 11359-2
CLTE - Transverse (23 to 80°C)	0.000085	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.19	W/m/K	ISO 8302
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohm	IEC 60093
Volume Resistivity	> 1.0E+15	ohm·cm	IEC 60093
Relative Permittivity			IEC 60250
50 Hz	3.00		
60 Hz	3.00		
1 MHz	2.90		
Dissipation Factor			IEC 60250
50 Hz	0.0010		
60 Hz	0.0010		
1 MHz	0.014		
Comparative Tracking Index	300	V	IEC 60112
Electric Strength (3.20 mm, in Oil)	16	kV/mm	IEC 60243-1

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Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL			UL 94
1.50 mm		HB	
3.00 mm		HB	
Glow Wire Flammability Index (3.20 mm)	750	°C	IEC 60695-2-12

Processing Information

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

Notes

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

² Tensile Bar

³ 2.0 mm/min

⁴ Break

⁵ 80*10*4 sp=62mm

⁶ 80*10*4

⁷ 120*10*4 mm

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