SABIC Innovative Plastics™

Valox* Resin 8032UX

Europe-Africa-Middle East: COMMERCIAL

VALOX 8032UX is a 30% glass fibre reinforced, UV stabilized PBT+PET blend with excellent surface finish. This grade is VALOX 8032U with improved weathering resistance. Applications: appliance housings, door handles, mirror brackets.

Property

TYPICAL PROPERTIES (1)			
MECHANICAL	Value	Unit	Standard
Taber Abrasion, CS-17, 1 kg	30	mg/1000cy	SABIC Method
Tensile Stress, break, 5 mm/min	145	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.5	%	ISO 527
Tensile Modulus, 1 mm/min	9500	MPa	ISO 527
Flexural Stress, break, 2 mm/min	210	MPa	ISO 178
Flexural Modulus, 2 mm/min	8500	MPa	ISO 178
Hardness, H358/30	110	MPa	ISO 2039-1
Hardness, Rockwell R	119	-	ISO 2039-2
IMPACT	Value	Unit	Standard
Izod Impact, unnotched 80*10*4 +23°C	45	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	40	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 0°C	8	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	8	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	9	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	9	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	45	kJ/m²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	40	kJ/m²	ISO 179/1eU
THERMAL	Value	Unit	Standard
CTE, 23°C to 60°C, flow	2.2E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	8.1E-05	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate A/50	220	°C	ISO 306
Vicat Softening Temp, Rate B/50	202	°C	ISO 306
Vicat Softening Temp, Rate B/120	204	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	217	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	195	°C	ISO 75/Ae
PHYSICAL	Value	Unit	Standard
Mold Shrinkage on Tensile Bar, flow (2)	0.4 - 0.8	%	SABIC Method
Mold Shrinkage on Tensile Bar, xflow (2)	0.6 - 1	%	SABIC Method
Density	1.53	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	0.16	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.05	%	ISO 62
Melt Volume Rate, MVR at 265°C/2.16 kg	15	cm³/10 min	ISO 1133
ELECTRICAL	Value	Unit	Standard
Volume Resistivity	>1.E+15	Ohm-cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ohm	IEC 60093
Dielectric Strength, in oil, 3.2 mm	15	kV/mm	IEC 60243-1

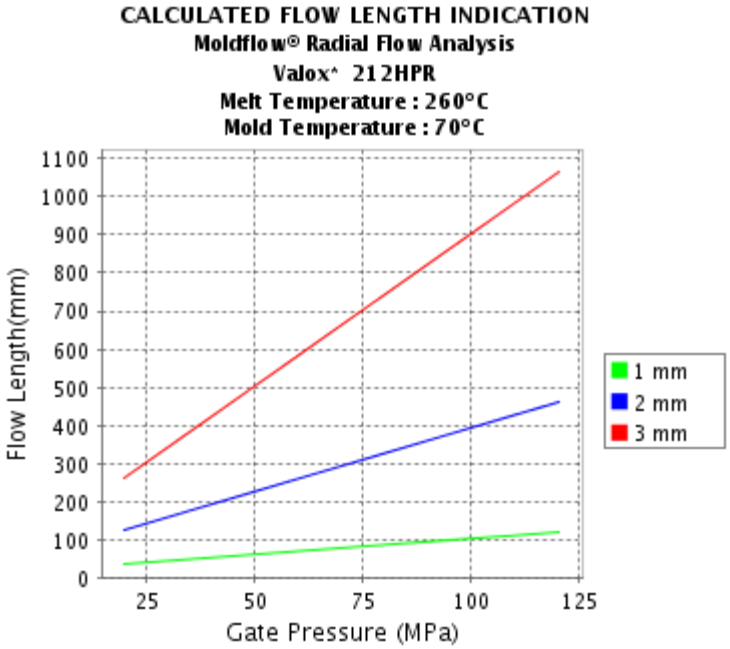
Relative Permittivity, 50/60 Hz	3.3	-	IEC 60250
Relative Permittivity, 1 MHz	3.2	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.0008	-	IEC 60250
Dissipation Factor, 1 MHz	0.013	-	IEC 60250
FLAME CHARACTERISTICS	Value	Unit	Standard
UL Compliant, 94HB Flame Class Rating (3)(4)	1.6	mm	UL 94 by GE

Source GMD, last updated:04/10/2003

Processing

Parameter Injection Molding	Value	Unit
Drying Temperature	110 - 120	°C
Drying Time	4 - 6	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	260 - 285	°C
Nozzle Temperature	265 - 275	°C
Front - Zone 3 Temperature	260 - 280	°C
Middle - Zone 2 Temperature	255 - 280	°C
Rear - Zone 1 Temperature	240 - 260	°C
Hopper Temperature	40 - 60	°C
Mold Temperature	60 - 110	°C

Source GMD, last updated:04/10/2003



Note: Technical support is recommended if Gate Pressure is greater than 80 MPa. Contact your local representative.

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR (LOCAL SALES OFFICE) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.
(2) Only typical data for selection purposes. Not to be used for part or tool design.
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
(4) Internal measurements according to UL standards.