

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	
2	10	10/111	100 170/100	
THERMAL	Value	Unit	Standard	
THERMAL	Value	Unit	Standard	
THERMAL CTE, 23°C to 60°C, flow	Value 2.2E-05	Unit 1/°C	Standard ISO 11359-2	
THERMAL CTE, 23°C to 60°C, flow CTE, 23°C to 60°C, xflow	Value 2.2E-05 8.1E-05	Unit 1/°C 1/°C	Standard ISO 11359-2 ISO 11359-2	
THERMAL CTE, 23°C to 60°C, flow CTE, 23°C to 60°C, xflow Ball Pressure Test, 125°C +/- 2°C	Value 2.2E-05 8.1E-05 PASSES	Unit 1/°C 1/°C -	Standard ISO 11359-2 ISO 11359-2 IEC 60695-10-2	
THERMAL CTE, 23°C to 60°C, flow CTE, 23°C to 60°C, xflow Ball Pressure Test, 125°C +/- 2°C Vicat Softening Temp, Rate A/50	Value 2.2E-05 8.1E-05 PASSES 220	Unit 1/°C 1/°C - °C	Standard ISO 11359-2 ISO 11359-2 IEC 60695-10-2 ISO 306	
THERMAL CTE, 23°C to 60°C, flow CTE, 23°C to 60°C, xflow Ball Pressure Test, 125°C +/- 2°C Vicat Softening Temp, Rate A/50 Vicat Softening Temp, Rate B/50	Value 2.2E-05 8.1E-05 PASSES 220 202	Unit 1/°C 1/°C - °C °C	Standard ISO 11359-2 ISO 11359-2 IEC 60695-10-2 ISO 306 ISO 306	
THERMAL CTE, 23°C to 60°C, flow CTE, 23°C to 60°C, xflow Ball Pressure Test, 125°C +/- 2°C Vicat Softening Temp, Rate A/50 Vicat Softening Temp, Rate B/50 Vicat Softening Temp, Rate B/120	Value 2.2E-05 8.1E-05 PASSES 220 202 204	Unit 1/°C 1/°C - °C °C °C	Standard ISO 11359-2 ISO 11359-2 IEC 60695-10-2 ISO 306 ISO 306 ISO 306	
THERMAL CTE, 23°C to 60°C, flow CTE, 23°C to 60°C, xflow Ball Pressure Test, 125°C +/- 2°C Vicat Softening Temp, Rate A/50 Vicat Softening Temp, Rate B/50 Vicat Softening Temp, Rate B/120 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	Value 2.2E-05 8.1E-05 PASSES 220 202 204 217	Unit 1/°C 1/°C - °C °C °C °C	Standard ISO 11359-2 ISO 11359-2 IEC 60695-10-2 ISO 306 ISO 306 ISO 306 ISO 75/Be	
THERMAL CTE, 23°C to 60°C, flow CTE, 23°C to 60°C, xflow Ball Pressure Test, 125°C +/- 2°C Vicat Softening Temp, Rate A/50 Vicat Softening Temp, Rate B/50 Vicat Softening Temp, Rate B/120 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	Value 2.2E-05 8.1E-05 PASSES 220 202 204 217 195	Unit 1/°C 1/°C - °C °C °C °C °C	Standard ISO 11359-2 ISO 11359-2 IEC 60695-10-2 ISO 306 ISO 306 ISO 306 ISO 75/Be ISO 75/Ae	
THERMAL CTE, 23°C to 60°C, flow CTE, 23°C to 60°C, xflow Ball Pressure Test, 125°C +/- 2°C Vicat Softening Temp, Rate A/50 Vicat Softening Temp, Rate B/50 Vicat Softening Temp, Rate B/120 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm PHYSICAL	Value 2.2E-05 8.1E-05 PASSES 220 202 204 217 195 Value	Unit 1/°C 1/°C - °C °C °C °C C Unit	Standard ISO 11359-2 ISO 11359-2 IEC 60695-10-2 ISO 306 ISO 306 ISO 306 ISO 75/Be ISO 75/Ae Standard	
THERMAL CTE, 23°C to 60°C, flow CTE, 23°C to 60°C, xflow Ball Pressure Test, 125°C +/- 2°C Vicat Softening Temp, Rate A/50 Vicat Softening Temp, Rate B/50 Vicat Softening Temp, Rate B/120 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm PHYSICAL Mold Shrinkage on Tensile Bar, flow (2)	Value 2.2E-05 8.1E-05 PASSES 220 202 204 217 195 Value 0.4 - 0.8	Unit 1/°C 1/°C - °C °C °C °C C C C C C C C C C C C	Standard ISO 11359-2 ISO 11359-2 IEC 60695-10-2 ISO 306 ISO 306 ISO 306 ISO 75/Be ISO 75/Ae Standard SABIC Method	
THERMAL CTE, 23°C to 60°C, flow CTE, 23°C to 60°C, xflow Ball Pressure Test, 125°C +/- 2°C Vicat Softening Temp, Rate A/50 Vicat Softening Temp, Rate B/50 Vicat Softening Temp, Rate B/120 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm PHYSICAL Mold Shrinkage on Tensile Bar, flow (2) Mold Shrinkage on Tensile Bar, xflow (2)	Value 2.2E-05 8.1E-05 PASSES 220 202 204 217 195 Value 0.4 - 0.8 0.6 - 1	Unit 1/°C 1/°C - °C °C °C °C C C C C C C C C C C C C	Standard ISO 11359-2 ISO 11359-2 IEC 60695-10-2 ISO 306 ISO 306 ISO 306 ISO 75/Be ISO 75/Ae Standard SABIC Method SABIC Method	
THERMAL CTE, 23°C to 60°C, flow CTE, 23°C to 60°C, xflow Ball Pressure Test, 125°C +/- 2°C Vicat Softening Temp, Rate A/50 Vicat Softening Temp, Rate B/50 Vicat Softening Temp, Rate B/120 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm PHYSICAL Mold Shrinkage on Tensile Bar, flow (2) Mold Shrinkage on Tensile Bar, xflow (2) Density	Value 2.2E-05 8.1E-05 PASSES 220 202 204 217 195 Value 0.4 - 0.8 0.6 - 1 1.53	Unit 1/°C 1/°C - °C °C °C °C C C C C C C C C C C C	Standard ISO 11359-2 ISO 11359-2 IEC 60695-10-2 ISO 306 ISO 306 ISO 306 ISO 75/Be ISO 75/Ae Standard SABIC Method SABIC Method	
THERMAL CTE, 23°C to 60°C, flow CTE, 23°C to 60°C, xflow Ball Pressure Test, 125°C +/- 2°C Vicat Softening Temp, Rate A/50 Vicat Softening Temp, Rate B/50 Vicat Softening Temp, Rate B/120 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm PHYSICAL Mold Shrinkage on Tensile Bar, flow (2) Mold Shrinkage on Tensile Bar, xflow (2) Density Water Absorption, (23°C/sat)	Value 2.2E-05 8.1E-05 PASSES 220 202 204 217 195 Value 0.4 - 0.8 0.6 - 1 1.53 0.16	Unit 1/°C 1/°C - °C °C °C °C C C C C C C C C C C C	Standard ISO 11359-2 ISO 11359-2 IEC 60695-10-2 ISO 306 ISO 306 ISO 306 ISO 75/Be ISO 75/Ae Standard SABIC Method SABIC Method ISO 1183 ISO 62	
THERMAL CTE, 23°C to 60°C, flow CTE, 23°C to 60°C, xflow Ball Pressure Test, 125°C +/- 2°C Vicat Softening Temp, Rate A/50 Vicat Softening Temp, Rate B/50 Vicat Softening Temp, Rate B/120 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm PHYSICAL Mold Shrinkage on Tensile Bar, flow (2) Mold Shrinkage on Tensile Bar, xflow (2) Density Water Absorption, (23°C/sat) Moisture Absorption (23°C / 50% RH)	Value 2.2E-05 8.1E-05 PASSES 220 202 204 217 195 Value 0.4 - 0.8 0.6 - 1 1.53 0.16 0.05	Unit 1/°C 1/°C - °C °C °C °C C Unit % % g/cm³ %	Standard ISO 11359-2 ISO 11359-2 IEC 60695-10-2 ISO 306 ISO 306 ISO 306 ISO 75/Be ISO 75/Ae Standard SABIC Method ISO 1183 ISO 62 ISO 62	
THERMAL CTE, 23°C to 60°C, flow CTE, 23°C to 60°C, xflow Ball Pressure Test, 125°C +/- 2°C Vicat Softening Temp, Rate A/50 Vicat Softening Temp, Rate B/50 Vicat Softening Temp, Rate B/120 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm PHYSICAL Mold Shrinkage on Tensile Bar, flow (2) Mold Shrinkage on Tensile Bar, xflow (2) Density Water Absorption, (23°C/sat) Moisture Absorption (23°C / 50% RH) Melt Volume Rate, MVR at 265°C/2.16 kg	Value 2.2E-05 8.1E-05 PASSES 220 202 204 217 195 Value 0.4 - 0.8 0.6 - 1 1.53 0.16 0.05 15	Unit 1/°C 1/°C - °C °C °C °C C C C C C C C C C C C	Standard ISO 11359-2 ISO 11359-2 IEC 60695-10-2 ISO 306 ISO 306 ISO 306 ISO 75/Be ISO 75/Ae Standard SABIC Method SABIC Method ISO 1183 ISO 62 ISO 62 ISO 1133	
THERMAL CTE, 23°C to 60°C, flow CTE, 23°C to 60°C, xflow Ball Pressure Test, 125°C +/- 2°C Vicat Softening Temp, Rate A/50 Vicat Softening Temp, Rate B/50 Vicat Softening Temp, Rate B/120 HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm PHYSICAL Mold Shrinkage on Tensile Bar, flow (2) Mold Shrinkage on Tensile Bar, xflow (2) Density Water Absorption, (23°C/sat) Moisture Absorption (23°C / 50% RH) Melt Volume Rate, MVR at 265°C/2.16 kg ELECTRICAL	Value 2.2E-05 8.1E-05 PASSES 220 202 204 217 195 Value 0.4 - 0.8 0.6 - 1 1.53 0.16 0.05 15 Value	Unit 1/°C 1/°C - °C °C °C °C C C Unit % % g/cm³ % % cm³/10 min Unit	Standard ISO 11359-2 ISO 11359-2 IEC 60695-10-2 ISO 306 ISO 306 ISO 306 ISO 75/Be ISO 75/Ae Standard SABIC Method SABIC Method ISO 1183 ISO 62 ISO 62 ISO 62 ISO 1133 Standard	

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

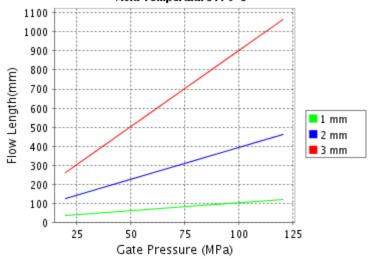
Processing

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

CALCULATED FLOW LENGTH INDICATION Moldflow® Radial Flow Analysis Valox^ 212HPR

Melt Temperature : 260°C Mold Temperature : 70°C



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

 Moldflow is a registered trademark of the Moldflow Corporation.

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.

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