سابك
sabic

VALOX™ RESIN T3N8032UX

MECHANICALLY RECYCLED ETP COMPOUND
REGION EUROPE

DESCRIPTION

VALOX™ T3N8032UX resin is a 30% glass-fiber filled PBT/PET compound, which is formulated with 34% post-industrial recycled PET. The material has improved surface finish and excellent UV performance. Typical applications include appliance housings, door handles, mirror brackets.

TYPICAL PROPERTY VALUES

Revision 20260304

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield, 5 mm/min	145	MPa	ISO 527
Tensile Stress, break, 5 mm/min	145	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.5	%	ISO 527
Tensile Strain, break, 5 mm/min	2.5	%	ISO 527
Tensile Modulus, 1 mm/min	10500	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	210	MPa	ISO 178
Flexural Stress, break, 2 mm/min	210	MPa	ISO 178
Flexural Strain, break, 2 mm/min	3	%	ISO 178
Flexural Modulus, 2 mm/min	9500	MPa	ISO 178
Tensile Stress, yld, Type I, 5 mm/min	140	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	140	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2.5	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.5	%	ASTM D638
Tensile Modulus, 5 mm/min	10500	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	205	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	200	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	9500	MPa	ASTM D790
Taber Abrasion, CS-17, 1 kg	30	mg/1000cy	SABIC method
Ball Indentation Hardness, H358/30	234	MPa	ISO 2039-1
Hardness, Rockwell R	120	-	ISO 2039-2
IMPACT			
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
Izod Impact, unnotched 80*10*4 +23°C	50	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	45	kJ/m²	ISO 180/1U
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
Charpy Impact, notched, 23°C	9	kJ/m²	ISO 179/2C
Charpy Impact, notched, -30°C	9	kJ/m²	ISO 179/2C
Charpy Impact, unnotched, 23°C	58	kJ/m²	ISO 179/2C

CHEMISTRY THAT MATTERS™

سابك
sabic

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Charpy Impact, unnotched, -30°C	50	kJ/m²	ISO 179/2C
Izod Impact, notched, 23°C	70	J/m	ASTM D256
Izod Impact, notched, -30°C	65	J/m	ASTM D256
Izod Impact, unnotched, 23°C	750	J/m	ASTM D4812
Izod Impact, unnotched, -30°C	700	J/m	ASTM D4812
Instrumented Dart Impact Total Energy, 23°C	8	J	ASTM D3763
THERMAL			
Vicat Softening Temp, Rate A/50	220	°C	ISO 306
Vicat Softening Temp, Rate B/50	210	°C	ISO 306
Vicat Softening Temp, Rate B/120	210	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	220	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	200	°C	ISO 75/Af
CTE, 23°C to 60°C, flow	2.2E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	10.0E-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	ASTM D1525
Vicat Softening Temp, Rate B/50	210	°C	ASTM D1525
HDT, 0.45 MPa, 3.2 mm, unannealed	220	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	200	°C	ASTM D648
CTE, -40°C to 40°C, flow	2.5E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	7.5E-05	1/°C	ASTM E831
PHYSICAL			
Density	1.57	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.07	%	ISO 62
Water Absorption, (23°C/saturated)	0.22	%	ISO 62-1
Mold Shrinkage, flow, 24 hrs	0.1 – 0.5	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.6 – 1.0	%	ISO 294
Melt Volume Rate, MVR at 250°C/5.0 kg	20	cm³/10 min	ISO 1133
Melt Volume Rate, MVR at 265°C/2.16 kg	15	cm³/10 min	ISO 1133
Melt Volume Rate, MVR at 265°C/5.0 kg	35	cm³/10 min	ISO 1133
Melt Viscosity, 260°C, 1500 sec-1	195	Pa-s	ISO 11443
Specific Gravity	1.57	-	ASTM D792
Filler Content	30	%	ASTM D229
Moisture Absorption, (23°C/50% RH/24 hrs)	0.05	%	ASTM D570
Water Absorption, (23°C/24hrs)	0.07	%	ASTM D570
Mold Shrinkage, flow, 24 hrs	0.1 – 0.5	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs	0.6 – 1.0	%	ASTM D955
Melt Flow Rate, 265°C/2.16kgf	21	g/10 min	ASTM D1238
Melt Flow Rate, 265°C/5.0 kgf	45	g/10 min	ASTM D1238
ELECTRICAL			
Comparative Tracking Index (UL) {PLC}	2	PLC Code	UL 746A
Volume Resistivity	1.E+15	Ω.cm	IEC 60093
Surface Resistivity, ROA	1.E+15	Ω	IEC 60093
Dielectric Strength, in oil, 0.8 mm	27	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 1.6 mm	23	kV/mm	IEC 60243-1

CHEMISTRY THAT MATTERS™

سابك
sabic

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Dielectric Strength, in oil, 3.2 mm	15	kV/mm	IEC 60243-1
Relative Permittivity, 100 Hz	3.6	-	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
Comparative Tracking Index	300	V	IEC 60112
Relative Permittivity, 50/60 Hz	3.3	-	IEC 60250
FLAME CHARACTERISTICS			
UL Compliant, 94HB Flame Class Rating	1.6	mm	UL 94 by SABIC-IP
INJECTION MOLDING			
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	