



VALOXTM RESIN 815

REGION AMERICAS

DESCRIPTION

15% GR PBT+ PET, excellent surface finish. Typical applications are hot air gun housing assemblies, industrial glue guns, appliance housings and handles.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	89	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	137	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	4480	MPa	ASTM D 790
Hardness, Rockwell R	120	-	ASTM D 785
IMPACT			
Izod Impact, unnotched, 23°C	267	J/m	ASTM D 4812
Izod Impact, notched, 23°C	37	J/m	ASTM D 256
THERMAL			
HDT, 0.45 MPa, 6.4 mm, unannealed	210	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	160	°C	ASTM D 648
CTE, -40°C to 40°C, flow	4.5E-05	1/°C	ASTM E 831
CTE, 60°C to 138°C, flow	5.4E-05	1/°C	ASTM E 831
Relative Temp Index, Elec	125	°C	UL 746B
Relative Temp Index, Mech w/impact	110	°C	UL 746B
Relative Temp Index, Mech w/o impact	125	°C	UL 746B
PHYSICAL			
Specific Gravity	1.43	-	ASTM D 792
Specific Volume	0.7	cm³/g	ASTM D 792
Water Absorption, 24 hours	0.06	%	ASTM D 570
Mold Shrinkage, flow, 1.5-3.2 mm	0.4 – 0.6	%	SABIC method
Mold Shrinkage, flow, 3.2-4.6 mm	0.6 – 0.9	%	SABIC method
Mold Shrinkage, xflow, 1.5-3.2 mm	0.5 – 0.8	%	SABIC method
Mold Shrinkage, xflow, 3.2-4.6 mm	0.8 – 1.1	%	SABIC method
ELECTRICAL			
Volume Resistivity	5.6E+16	Ohm-cm	ASTM D 257
Dielectric Strength, in air, 3.2 mm	22	kV/mm	ASTM D 149
Dielectric Strength, in oil, 1.6 mm	23.6	kV/mm	ASTM D 149
Relative Permittivity, 100 Hz	3.6	-	ASTM D 150
Relative Permittivity, 1 MHz	3.5	-	ASTM D 150
Dissipation Factor, 100 Hz	0.002	-	ASTM D 150
Arc Resistance, Tungsten {PLC}	5	PLC Code	ASTM D 495
Hot Wire Ignition {PLC}	2	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	1	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	2	PLC Code	UL 746A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Comparative Tracking Index (UL) {PLC}	2	PLC Code	UL 746A
FLAME CHARACTERISTICS			
UL Yellow Card Link	<u>E121562-220850</u>	-	-
UL Recognized, 94HB Flame Class Rating	1.47	mm	UL 94
INJECTION MOLDING			
Drying Temperature	120	°C	
Drying Time	3 – 4	hrs	
Drying Time (Cumulative)	12	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	250 – 265	°C	
Nozzle Temperature	245 – 260	°C	
Front - Zone 3 Temperature	250 – 265	°C	
Middle - Zone 2 Temperature	245 – 260	°C	
Rear - Zone 1 Temperature	240 – 255	°C	
Mold Temperature	65 – 90	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	50 – 80	rpm	
Shot to Cylinder Size	40 – 80	%	
Vent Depth	0.025 – 0.038	mm	