VALOX™ RESIN 735

REGION ASIA

DESCRIPTION

40% glass/mineral, excellent thermal performance/low shrink. Motorized heating appliances, adaptor rings, oven grills, etc. Black/natural only.

TYPICAL PROPERTY VALUES

Revision 20190925

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	75	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	124	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	8300	MPa	ASTM D 790
Hardness, Rockwell R	109	-	ASTM D 785
IMPACT			
Izod Impact, unnotched, 23°C	427	J/m	ASTM D 4812
Izod Impact, notched, 23°C	74	J/m	ASTM D 256
THERMAL			
HDT, 0.45 MPa, 6.4 mm, unannealed	215	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	198	°C	ASTM D 648
CTE, -40°C to 40°C, flow	2.52E-05	1/°C	ASTM E 831
CTE, 60°C to 138°C, flow	2.52E-05	1/°C	ASTM E 831
Relative Temp Index, Elec	140	°C	UL 746B
Relative Temp Index, Mech w/impact	140	°C	UL 746B
Relative Temp Index, Mech w/o impact	140	°C	UL 746B
PHYSICAL			
Specific Gravity	1.62	-	ASTM D 792
Specific Volume	0.62	cm³/g	ASTM D 792
Water Absorption, 24 hours	0.07	%	ASTM D 570
Mold Shrinkage, flow, 1.5-3.2 mm	0.3 – 0.4	%	SABIC method
Mold Shrinkage, flow, 3.2-4.6 mm	0.4 – 0.6	%	SABIC method
Mold Shrinkage, xflow, 1.5-3.2 mm	0.4 – 0.6	%	SABIC method
Mold Shrinkage, xflow, 3.2-4.6 mm	0.6 – 0.8	%	SABIC method
ELECTRICAL			
Volume Resistivity	1.3E+15	Ohm-cm	ASTM D 257
Dielectric Strength, in air, 3.2 mm	23.6	kV/mm	ASTM D 149
Dielectric Strength, in oil, 1.6 mm	29.5	kV/mm	ASTM D 149
Relative Permittivity, 100 Hz	4.3	-	ASTM D 150
Relative Permittivity, 1 MHz	4	-	ASTM D 150
Dissipation Factor, 100 Hz	0.001	-	ASTM D 150
Dissipation Factor, 1 MHz	0.02	-	ASTM D 150
Arc Resistance, Tungsten {PLC}	6	PLC Code	ASTM D 495
Hot Wire Ignition {PLC}	0	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	1	PLC Code	UL 746A

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
High Ampere Arc Ign, surface {PLC}	3	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	2	PLC Code	UL 746A
FLAME CHARACTERISTICS			
UL Yellow Card Link	E45587-236819	-	-
UL Recognized, 94HB Flame Class Rating	0.81	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	255 – 275	°C	
Nozzle Temperature	255 – 270	°C	
Front - Zone 3 Temperature	255 – 265	°C	
Middle - Zone 2 Temperature	250 – 260	°C	
Rear - Zone 1 Temperature	245 – 255	°C	
Mold Temperature	65 – 95	°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	

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