VALOX™ RESIN 745

REGION ASIA

DESCRIPTION

30% mineral reinforced polyester improved toughness and low warpage. Typical applications are telephone ringer frames and card racks.

TYPICAL PROPERTY VALUES

Revision 20260528

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	48	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	46	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	89	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	3440	MPa	ASTM D790
Hardness, Rockwell R	112	-	ASTM D785
IMPACT			
Izod Impact, unnotched, 23°C	1602	J/m	ASTM D4812
Izod Impact, notched, 23°C	80	J/m	ASTM D256
THERMAL			
HDT, 0.45 MPa, 6.4 mm, unannealed	160	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	87	°C	ASTM D648
CTE, -40°C to 40°C, flow	7.56E-05	1/°C	ASTM E831
CTE, 60°C to 138°C, flow	1.39E-04	1/°C	ASTM E831
Relative Temp Index, Elec	105	°C	UL 746B
Relative Temp Index, Mech w/impact	105	°C	UL 746B
Relative Temp Index, Mech w/o impact	105	°C	UL 746B
PHYSICAL			
Specific Gravity	1.46	-	ASTM D792
Specific Volume	0.69	cm^3/g	ASTM D792
Water Absorption, (23°C/24hrs)	0.09	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm	0.8 – 1	%	SABIC method
Mold Shrinkage, flow, 1.5-3.2 mm	0.6 – 0.8	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.8 – 1	%	SABIC method
Mold Shrinkage, xflow, 1.5-3.2 mm	0.6 – 0.8	%	SABIC method
ELECTRICAL			
Volume Resistivity	6.9E+16	Ω.cm	ASTM D257
Dielectric Strength, in air, 3.2 mm	23.2	kV/mm	ASTM D149
Dielectric Strength, in oil, 1.6 mm	24.8	kV/mm	ASTM D149
Relative Permittivity, 100 Hz	3.3	-	ASTM D150
Relative Permittivity, 1 MHz	3.2	-	ASTM D150
Dissipation Factor			
100 Hz	0.002	-	ASTM D150
1 MHz	0.014	-	ASTM D150
Arc Resistance, Tungsten {PLC}	5	PLC Code	ASTM D495
Hot Wire Ignition {PLC}	2	PLC Code	UL 746A

© 2026 Copyright by SABIC. All rights reserved

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
High Voltage Arc Track Rate {PLC}	3	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	0	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	2	PLC Code	UL 746A
FLAME CHARACTERISTICS			
UL Yellow Card Link	E45587-236820	-	-
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	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	

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.

© 2026 Copyright by SABIC. All rights reserved