VALOX™ FR RESINS 365

REGION AMERICAS

DESCRIPTION

Unreinforced, opaque, provides chemical resistance and dimensional stability, UL94V-0 rated at 0.031".

TYPICAL PROPERTY VALUES

Revision 20191022

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	41	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	41	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	120	%	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	68	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	68	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2240	MPa	ASTM D790
Hardness, Rockwell R	115	-	ASTM D785
IMPACT			
Izod Impact, notched, 23°C	640	J/m	ASTM D256
Izod Impact, notched, -30°C	192	J/m	ASTM D256
Izod Impact, notched, -40°C	170	J/m	ASTM D256
Gardner, 23°C	37	J	ASTM D3029
Modified Gardner, 23°C	37	J	ASTM D3029
THERMAL			
HDT, 0.45 MPa, 6.4 mm, unannealed	129	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	121	°C	ASTM D648
CTE, -40°C to 40°C, flow	6.84E-05	1/°C	ASTM E831
CTE, -40°C to 95°C, flow	7.92E-05	1/°C	ASTM E831
CTE, 60°C to 138°C, flow	8.28E-05	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	1.33	-	ASTM D792
Specific Volume	0.75	cm^3/g	ASTM D792
Water Absorption, (23°C/24hrs)	0.14	%	ASTM D570
Water Absorption, (23°C/Saturated)	0.6	%	ASTM D570
Mold Shrinkage, flow, 0.75-2.3 mm	0.8 – 1.1	%	SABIC method
Mold Shrinkage, flow, 2.3-4.6 mm	1 – 1.4	%	SABIC method
Mold Shrinkage, xflow, 0.75-2.3 mm	0.9 – 1.3	%	SABIC method
Mold Shrinkage, xflow, 2.3-4.6 mm	1.2 – 1.6	%	SABIC method
ELECTRICAL			
Dielectric Strength, in oil, 3.2 mm	12	kV/mm	ASTM D149
Relative Permittivity, 100 Hz	8.5	-	ASTM D150
Relative Permittivity, 1 MHz	5.7	-	ASTM D150

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Dissipation Factor, 100 Hz	0.002	-	ASTM D150
Dissipation Factor, 1 MHz	0.03	-	ASTM D150
Arc Resistance, Tungsten {PLC}	6	PLC Code	ASTM D495
Hot Wire Ignition {PLC}	2	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	3	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	3	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	3	PLC Code	UL 746A
FLAME CHARACTERISTICS			
UL Yellow Card Link	E121562-220790	-	-
UL Recognized, 94V-0 Flame Class Rating	0.76	mm	UL 94
UL Recognized, 94-5VA Flame Class Rating	2.2	mm	UL 94
Oxygen Index (LOI)	28.8	%	ASTM D2863
UV-light, water exposure/immersion	F2	-	UL 746C
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	50 – 75	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	50 – 100	rpm	
Shot to Cylinder Size	40 – 80	%	
Vent Depth	0.025 – 0.038	mm	

DISCLAIMER