



VALOX 357

Product Portfolio | Product Lines | VALOX

USA: Commercial

Unreinforced, impact modified, UL94V-0 rated. Applications like bobbins, switches and enclosures.

Processing

INJECTION MOULDING-USA

VAL-IM-02

Drying Temperature	250	deg F
Drying Time (basic)	3-4	h
Drying Time (cumulative)	12	h
Moisture Content, max	0.02	%
Moisture Content, min	-	%
Melt Temperature	480-510	deg F
Nozzle Temperature	470-500	deg F
Front Temperature	480-510	deg F
Middle Temperature	470-500	deg F
Rear Temperature	460-490	deg F
Mold Temperature	120-170	deg F
Back Pressure	50-100	psi
Screw Speed	50-100	rpm
Suggested shot size	40-80	%
Clamp Tonnage	3-5	tons/psi
Vent Depth	.001-.0015	in

Source Eris, last updated: 2000/10/

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Properties

MECHANICAL

Property	Typical Data	Unit	Method
Tensile Str, yld, Type I, 2.0 in/min	7000	psi	ASTM D 638
Tensile Str, brk, Type I, 2.0 in/min	7000	psi	ASTM D 638
Tensile Elong, brk, Type I, 2.0 in/min	110.0	%	ASTM D 638
Flex Stress, yld, 0.05 in/min, 2" span	12000	psi	ASTM D 790
Flex Stress, brk, 0.05 in/min, 2" span	12000	psi	ASTM D 790
Flex Mod, 0.05 in/min, 2" span	300000	psi	ASTM D 790
Hardness, Rockwell R	117	-	ASTM D 785
Hardness, Rockwell R	117	-	ASTM D 785

IMPACT

Property	Typical Data	Unit	Method
Izod Impact, unnotched, 73F	60.0	ft-lb/in	ASTM D 4812
Izod Impact, notched, 73F	10.0	ft-lb/in	ASTM D 256
Gardner Impact, 73F	32	ft-lbs	ASTM D 3029

Modified Gardner, 73F

32 ft-lbs

ASTM D 3029

THERMAL**Property****Typical Data****Unit****Method**

HDT, 66 psi, 0.250", unannealed

280 deg F

ASTM D 648

HDT, 264 psi, 0.250", unannealed

210 deg F

ASTM D 648

CTE, flow, -40F to 100F

5 E-5 1/F

ASTM E 831

CTE, flow, 140F to 280F

6 E-5 1/F

ASTM E 831

Thermal Index, Elec Prop

120 deg C

UL 746B

Thermal Index, Mech Prop with impact

120 deg C

UL 746B

Thermal Index, Mech prop without impact

140 deg C

UL 746B

PHYSICAL**Property****Typical Data****Unit****Method**

Specific Gravity, solid

1.34 -

ASTM D 792

Specific Volume

20.80 in³/lb

ASTM D 792

Water Absorption, 24 hours @ 73F

0.080 %

ASTM D 570

Mold Shrinkage, flow, 30-90 mil

8-11 in/in E-3

ASTM D 955

Mold Shrinkage, flow, 90-180 mil

10-14 in/in E-3

ASTM D 955

Mold Shrinkage, xflow, 30-90 mil

9-13 in/in E-3

ASTM D 955

Mold Shrinkage, xflow, 90-180 mil

12-16 in/in E-3

ASTM D 955

ELECTRICAL**Property****Typical Data****Unit****Method**

Volume Resistivity

>1E16 ohm-cm

ASTM D 257

□ Dielectric Strength, in air, 125 mils

470 V/mil

ASTM D 149

□ Dielectric Strength, in oil, 62 mils

640 V/mil

ASTM D 149

Dielectric Strength, in oil, 125 mils

470 V/mil

ASTM D 149

Dielectric Constant, 100 Hz

3.20 -

ASTM D 150

Dielectric Constant, 1 MHz

3.20 -

ASTM D 150

Dissipation Factor, 100 Hz

0.0030 -

ASTM D 150

Dissipation Factor, 1 MHz

0.0300 -

ASTM D 150

Arc Resistance, Tungsten (+/- 0.125")

6 PLC Code

ASTM D 495

Hot Wire Ignition (+/- 0.125")

2 PLC Code

UL 746A

High Voltage Arc Track Rate (+/- 0.125")

3 PLC Code

UL 746A

High Amp Arc Ign, surface (+/- 0.125")

3 PLC Code

UL 746A

Comparative Track Index (+/- 0.125")

2 PLC Code

UL 746A

Volume Resistivity

>1E16 ohm-cm

ASTM D 257

Dielectric Strength, in air, 125 mils

470 V/mil

ASTM D 149

Dielectric Strength, in oil, 62 mils

640 V/mil

ASTM D 149

Dielectric Strength, in oil, 125 mils

470 V/mil

ASTM D 149

Dielectric Constant, 100 Hz

3.20 -

ASTM D 150

Dielectric Constant, 1 MHz

3.20 -

ASTM D 150

Dissipation Factor, 100 Hz

0.0030 -

ASTM D 150

Dissipation Factor, 1 MHz

0.0300 -

ASTM D 150

FLAME CHARACTERISTICS**Property****Typical Data****Unit****Method**

UL File Number, USA

E121562 -

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HB Rated (tested thickness)	0.018 inch	UL 94
V-0 Rated (tested thickness)	0.025 inch	UL 94
5VA Rating (tested thickness)	0.118 inch	UL 94
CSA (See File for complete listing)	LS88480 File No.	CSA LISTED
Oxygen Index (LOI)	30.0 %	ASTM D 2863
Oxygen Index (LOI)	30.0 %	ASTM D 2863
UV-light, water exposure/immersion	F2 -	UL746C

Source Eris, last updated: 2000/10/

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