



VALOX™ Resin V4760

Asia Pacific: COMMERCIAL

30% glass fiber reinforced, thin wall brominated FR, high flow, high CTI

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	1270	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	1270	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.2	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.2	%	ASTM D 638
Tensile Modulus, 5 mm/min	107000	kgf/cm ²	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	1910	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	96800	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	126	MPa	ISO 527
Tensile Stress, break, 5 mm/min	126	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.2	%	ISO 527
Tensile Strain, break, 5 mm/min	2.2	%	ISO 527
Tensile Modulus, 1 mm/min	10700	MPa	ISO 527
Flexural Stress, break, 2 mm/min	190	MPa	ISO 178
Flexural Modulus, 2 mm/min	9500	MPa	ISO 178
IMPACT			
Charpy Impact, unnotched, 23°C	45	kJ/m ²	ISO 179/2C
Izod Impact, unnotched, 23°C	75	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	7	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	7	cm-kgf/cm	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	38	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	7	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	8	kJ/m ²	ISO 180/1A



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IMPACT			
Charpy Impact, notched, 23°C	8	kJ/m ²	ISO 179/2C
Charpy Impact, notched, -30°C	8	kJ/m ²	ISO 179/2C
THERMAL			
Vicat Softening Temp, Rate B/50	202	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	209	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	211	°C	ASTM D 648
CTE, -40°C to 40°C, flow	2.1E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.1E-05	1/°C	ASTM E 831
CTE, 23°C to 80°C, flow	1.9E-05	1/°C	ASTM E 831
CTE, 23°C to 80°C, xflow	1.1E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	2.1E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.1E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, flow	1.5E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	1.2E-04	1/°C	ISO 11359-2
Ball Pressure Test, approximate maximum	190	°C	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	202	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	207	°C	ISO 75/Af
Relative Temp Index, Elec	140	°C	UL 746B
Relative Temp Index, Mech w/impact	130	°C	UL 746B
Relative Temp Index, Mech w/o impact	140	°C	UL 746B
PHYSICAL			
Density	1.67	g/cm ³	ASTM D 792
Mold Shrinkage, flow (5)	0.3	%	SABIC Method
Mold Shrinkage, xflow (5)	0.7	%	SABIC Method
Water Absorption, 23°C/24hrs	0.24	%	SABIC Method



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PHYSICAL			
Melt Volume Rate, MVR at 250°C/5.0 kg	28	cm ³ /10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	2.2E+15	Ohm-cm	ASTM D 257
Surface Resistivity	2.6E+16	Ohm	ASTM D 257
Hot Wire Ignition {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
Comparative Tracking Index	250	V	IEC 60112
FLAME CHARACTERISTICS			
UL Recognized, 94V-0 Flame Class Rating (3)	0.28	mm	UL 94
UL Recognized, 94-5VA Rating (3)	1.5	mm	UL 94
Glow Wire Flammability Index 960°C, passes at	0.8	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 0.4 mm	775	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 0.8 mm	725	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.0 mm	700	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 2.0 mm	725	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 3.0 mm	775	°C	IEC 60695-2-13
Oxygen Index (LOI)	30	%	ISO 4589



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
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	250 - 270	°C
Front - Zone 3 Temperature	255 - 275	°C
Middle - Zone 2 Temperature	250 - 270	°C
Rear - Zone 1 Temperature	245 - 265	°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