

SABIC VALOX™ PBT VAC3001物性表

属性	典型值	UNITS	测试手段
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	48	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	31	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	3.7	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	160	%	ASTM D638
Tensile Modulus, 50 mm/min	2500	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	79	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2300	MPa	ASTM D790
Tensile Stress, yield, 50 mm/min	50	MPa	ISO 527
Tensile Stress, break, 50 mm/min	25	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	3.5	%	ISO 527
Tensile Strain, break, 50 mm/min	120	%	ISO 527
Tensile Modulus, 1 mm/min	2300	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	75	MPa	ISO 178
Flexural Modulus, 2 mm/min	2200	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	59	J/m	ASTM D256
Izod Impact, notched, -30°C	25	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	54	J	ASTM D3763
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	2	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	4	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	156	°C	ASTM D1525

HDT, 0.45 MPa, 3.2 mm, unannealed	118	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	47	°C	ASTM D648
CTE, -40°C to 40°C, flow	9.18E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	7.9E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	9.18E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.9E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	156	°C	ISO 306
Vicat Softening Temp, Rate B/120	155	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	48	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.29	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm	2.1-2.3	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	2.1-2.3	%	SABIC method
Melt Flow Rate, 250°C/1.2 kgf	17	g/10 min	ASTM D1238
Density	1.3	g/cm ³	ISO 1183
Water Absorption, (23°C/saturated)	0.2	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.08	%	ISO 62
Melt Volume Rate, MVR at 250°C/1.2 kg	16	cm ³ /10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	1.E+17	Ω.cm	ASTM D257
Dielectric Strength, in air, 0.8 mm	15.9	kV/mm	ASTM D149
Relative Permittivity, 1 MHz	2.9	-	ASTM D150
Dissipation Factor, 1 MHz	0.02	-	ASTM D150
FLAME CHARACTERISTICS			
UL Yellow Card Link	E121562-102288283	-	-
UL Recognized, 94HB Flame Class Rating	1.5	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	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

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