

SABIC VALOX™ PBT SHF4320物性表

属性	典型值	UNITS	测试手段
MECHANICAL			
Tensile Stress, yield, 5 mm/min	90	MPa	ISO 527
Tensile Stress, break, 5 mm/min	90	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3.4	%	ISO 527
Tensile Strain, break, 5 mm/min	3.4	%	ISO 527
Tensile Modulus, 1 mm/min	4550	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	130	MPa	ISO 178
Flexural Stress, break, 2 mm/min	130	MPa	ISO 178
Flexural Strain, break, 2 mm/min	5	%	ISO 178
Flexural Modulus, 2 mm/min	4000	MPa	ISO 178
Ball Indentation Hardness, H358/30	110	MPa	ISO 2039-1
Hardness, Rockwell R	120	-	ISO 2039-2
IMPACT			
Izod Impact, unnotched 80*10*4 +23°C	25	kJ/m ²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	25	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	4	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	6	kJ/m ²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	5	kJ/m ²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	30	kJ/m ²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	30	kJ/m ²	ISO 179/1eU
THERMAL			
Vicat Softening Temp, Rate A/50	220	°C	ASTM D1525
HDT, 0.45 MPa, 3.2 mm, unannealed	215	°C	ASTM D648
CTE, -40°C to 40°C, flow	6.E-05	1/°C	ASTM E831

CTE, -40°C to 40°C, xflow	8.E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	4.63E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	8.2E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, flow	6.E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	8.E-05	1/°C	ISO 11359-2
CTE, 23°C to 150°C, flow	4.79E-05	1/°C	ISO 11359-2
CTE, 23°C to 150°C, xflow	2.11E-04	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate A/50	220	°C	ISO 306
Vicat Softening Temp, Rate B/120	205	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	215	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	185	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.36	-	ASTM D792
Filler Content	10	%	ASTM D229
Mold Shrinkage on Tensile Bar, flow	0.5-0.9	%	SABIC method
Mold Shrinkage on Tensile Bar, xflow	0.7-1.1	%	SABIC method
Density	1.36	g/cm ³	ISO 1183
Water Absorption, (23°C/saturated)	0.2	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.07	%	ISO 62
Melt Volume Rate, MVR at 250°C/2.16 kg	28	cm ³ /10 min	ISO 1133
Melt Viscosity, 260°C, 1500 sec-1	100	Pa-s	ISO 11443
ELECTRICAL			
Volume Resistivity	>1.E+15	Ω.cm	ASTM D257
Dielectric Strength, in oil, 0.8 mm	30	kV/mm	ASTM D149
Dielectric Strength, in oil, 1.6 mm	23	kV/mm	ASTM D149
Dielectric Strength, in oil, 3.2 mm	18	kV/mm	ASTM D149
Relative Permittivity, 1 MHz	3.4	-	ASTM D150
Dissipation Factor, 1 MHz	0.015	-	ASTM D150
Volume Resistivity	>1.E+15	Ω.cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ω	IEC 60093

Dielectric Strength, in oil, 0.8 mm	30	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 1.6 mm	23	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 3.2 mm	18	kV/mm	IEC 60243-1
Relative Permittivity, 1 MHz	3.4	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.001	-	IEC 60250
Dissipation Factor, 1 MHz	0.015	-	IEC 60250
Comparative Tracking Index	325	V	IEC 60112
Relative Permittivity, 50/60 Hz	3.1	-	IEC 60250

FLAME CHARACTERISTICS

UL Compliant, 94HB Flame Class Rating	1.6	mm	UL 94 by SABIC-IP
Glow Wire Flammability Index 750°C, passes at	1	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 1.0 mm	775	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.5 mm	800	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 2.0 mm	775	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 3.0 mm	750	°C	IEC 60695-2-13

Injection Molding

Drying Temperature	110-120	°C
Drying Time	2-4	Hrs
Maximum Moisture Content	0.02	%
Melt Temperature	250-270	°C
Nozzle Temperature	240-260	°C
Front - Zone 3 Temperature	245-265	°C
Middle - Zone 2 Temperature	240-255	°C
Rear - Zone 1 Temperature	230-245	°C
Hopper Temperature	40-60	°C
Mold Temperature	40-100	°C

此数据由我们从该材料的生产商处获得。我们尽最大努力确保此数据的准确性，但是我们对这些数据值不承担任何责任，并强烈建议在最终选料前，就数据值与材料供应商进行验证。