

SABIC VALOX™ PBT K4560物性表

属性	典型值	UNITS	测试手段
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	112	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	112	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	3	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	3	%	ASTM D638
Tensile Modulus, 5 mm/min	8840	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	173	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	7200	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	120	MPa	ISO 527
Flexural Stress, break, 2 mm/min	175	MPa	ISO 178
Flexural Modulus, 2 mm/min	7400	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	817	J/m	ASTM D4812
Izod Impact, notched, 23°C	96	J/m	ASTM D256
Izod Impact, unnotched 80*10*4 +23°C	52	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	11	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	220	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	200	°C	ASTM D648
Vicat Softening Temp, Rate B/120	204	°C	ISO 306
PHYSICAL			
Specific Gravity	1.5	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm	0.6-0.8	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	1-1.2	%	SABIC method

Melt Volume Rate, MVR at 250°C/2.16 kg	12	cm ³ /10 min	ISO 1133
Glass Fiber Content	30	%	ISO 3451
FLAME CHARACTERISTICS			
UL Yellow Card Link	E45329-101938154	-	-
AFTER 40 CYCLES, SIMILAR TO USCAR-2, CLASS III			
Tensile Stress, brk, Type I, 50 mm/min	96	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	102	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.2	%	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	7400	MPa	ASTM D790
Flexural Strain, 1.3 mm/min, 50 mm span	4.5	%	ASTM D790
Instrumented Impact, Total Energy, 23°C	8	J	ASTM D3763
PROPERTIES AFTER 1008 HOURS AT 125°C			
Tensile Stress, brk, Type I, 5 mm/min	115	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	4	%	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	7100	MPa	ASTM D790
Flexural Strain, 1.3 mm/min, 50 mm span	4.2	%	ASTM D790
Instrumented Impact, Total Energy, 23°C	7	J	ASTM D3763
AFTER 40 CYCLES, SIMILAR TO USCAR-2, CLASS IV			
Tensile Stress, brk, Type I, 5 mm/min	107	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.5	%	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	8000	MPa	ASTM D790
Flexural Strain, 1.3 mm/min, 50 mm span	4	%	ASTM D790
Instrumented Impact, Total Energy, 23°C	6	J	ASTM D3763
PROPERTIES AFTER 1008 HOURS AT 155°C			

Tensile Stress, brk, Type I, 5 mm/min	110	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	4	%	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	7500	MPa	ASTM D790
Flexural Strain, 1.3 mm/min, 50 mm span	4.2	%	ASTM D790
Injection Molding			
Drying Temperature	60-75	°C	
Drying Time	4-6	Hrs	
Drying Time (Cumulative)	8	Hrs	
Maximum Moisture Content	0.05	%	
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	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	

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