

SABIC LEXAN™ PC PK2870物性表

属性	典型值	UNITS	测试手段
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	62	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	65	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	7	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	>70	%	ASTM D638
Tensile Modulus, 50 mm/min	2350	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	95	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2300	MPa	ASTM D790
Tensile Stress, yield, 50 mm/min	65	MPa	ISO 527
Tensile Stress, break, 50 mm/min	70	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	7	%	ISO 527
Tensile Strain, break, 50 mm/min	>70	%	ISO 527
Tensile Modulus, 1 mm/min	2350	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	95	MPa	ISO 178
Flexural Modulus, 2 mm/min	2300	MPa	ISO 178
Hardness, Rockwell R	120	-	ISO 2039-2
IMPACT			
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D4812
Izod Impact, unnotched, -30°C	NB	J/m	ASTM D4812
Izod Impact, notched, 23°C	750	J/m	ASTM D256
Izod Impact, notched, -30°C	150	J/m	ASTM D256
Falling Dart Impact (D 3029), 23°C	170	J	ASTM D3029
Izod Impact, unnotched 80*10*3 +23°C	NB	kJ/m ²	ISO 180/1U
Izod Impact, unnotched 80*10*3 -30°C	NB	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*3 +23°C	75	kJ/m ²	ISO 180/1A

Izod Impact, notched 80*10*3 - 30°C	55	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	70	kJ/m ²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm	50	kJ/m ²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m ²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m ²	ISO 179/1eU
THERMAL			
Vicat Softening Temp, Rate B/50	150	°C	ASTM D1525
HDT, 0.45 MPa, 3.2 mm	145	°C	ASTM D648
HDT, 1.82 MPa, 3.2 mm	130	°C	ASTM D648
CTE, -40°C to 95°C, flow	7.E-05	1/°C	ASTM E831
Specific Heat	1.25	J/g-°C	ASTM C351
Thermal Conductivity	0.2	W/m-°C	ASTM C177
Thermal Conductivity	0.2	W/m-°C	ISO 8302
CTE, 23°C to 80°C, flow	7.E-05	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	149	°C	ISO 306
Vicat Softening Temp, Rate B/120	150	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	145	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	130	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.2	-	ASTM D792
Water Absorption, (23°C/Saturated)	0.35	%	ASTM D570
Water Absorption, equilibrium, 100°C	0.58	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm	0.5-0.7	%	SABIC method
Melt Flow Rate, 300°C/1.2 kgf	2.5	g/10 min	ASTM D1238
Density	1.2	g/cm ³	ISO 1183
Water Absorption, (23°C/saturated)	0.35	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62

Melt Volume Rate, MVR at 300°C/1.2 kg	2	cm ³ /10 min	ISO 1133
Melt Volume Rate, MVR at 300°C/2.16 kg	4	cm ³ /10 min	ISO 1133
OPTICAL			
Light Transmission, 2.54 mm	88	%	ASTM D1003
Haze, 2.54 mm	<0.8	%	ASTM D1003
Refractive Index	1.586	-	ISO 489
Injection Molding			
Drying Temperature	120	°C	
Drying Time	3-4	Hrs	
Drying Time (Cumulative)	48	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	320-345	°C	
Nozzle Temperature	315-340	°C	
Front - Zone 3 Temperature	320-345	°C	
Middle - Zone 2 Temperature	310-330	°C	
Rear - Zone 1 Temperature	300-320	°C	
Mold Temperature	80-115	°C	
Back Pressure	0.3-0.7	MPa	
Screw Speed	40-70	rpm	
Shot to Cylinder Size	40-60	%	
Vent Depth	0.025-0.076	mm	
Extrusion Blow Molding			
Drying Temperature	115-120	°C	
Drying Time	4-6	Hrs	
Drying Time (Cumulative)	48	Hrs	
Maximum Moisture Content	0.02	%	
Minimum Moisture Content	0.01	%	
Melt Temperature (Parison)	265-275	°C	
Barrel - Zone 1 Temperature	260-275	°C	
Barrel - Zone 2 Temperature	260-275	°C	
Barrel - Zone 3 Temperature	260-275	°C	
Barrel - Zone 4 Temperature	260-275	°C	
Adapter - Zone 5 Temperature	260-275	°C	

Head - Zone 6 - Top Temperature	260-275	°C
Head - Zone 7 - Bottom Temperature	260-275	°C
Screw Speed	15-50	rpm
Mold Temperature	65-95	°C
Die Temperature	270-280	°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。