SABIC LEXAN™ PC EM3110物性表

属性	典型值	UNITS	测试手段
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	57	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	110	%	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	81	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2030	MPa	ASTM D790
IMPACT			
Izod Impact, notched, 23°C	640	J/m	ASTM D256
Izod Impact, notched, -20°C	587	J/m	ASTM D256
Izod Impact, notched, -30°C	213	J/m	ASTM D256
Izod Impact, notched, 23°C, 6.4mm	213	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	56	J	ASTM D3763
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	118	°C	ASTM D648
HDT, 0.45 MPa, 6.4 mm, unannealed	126	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	123	°C	ASTM D648
CTE, -40°C to 95°C, flow	6.48E-05	1/°C	ASTM E831
Relative Temp Index, Elec	80	°C	UL 746B
Relative Temp Index, Mech w/impact	80	°C	UL 746B
Relative Temp Index, Mech w/o impact	80	°C	UL 746B
PHYSICAL			
Specific Gravity	1.19	-	ASTM D792
Water Absorption, (23°C/24hrs)	0.16	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm	0.5-0.7	%	SABIC method
Melt Flow Rate, 300°C/1.2 kgf	20	g/10 min	ASTM D1238

FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating	1.47	mm	UL 94
Injection Molding			
Drying Temperature	120	°C	
Drying Time	3-4	Hrs	
Drying Time (Cumulative)	10	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	275-300	°C	
Nozzle Temperature	270-295	°C	
Front - Zone 3 Temperature	275-300	°C	
Middle - Zone 2 Temperature	265-290	°C	
Rear - Zone 1 Temperature	255-275	°C	
Mold Temperature	70-95	°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	