

XYLEX™ X8300 resin

Polycarbonate + Polyester
SABIC Innovative Plastics Europe

Message:
PC+Polyester, UV Stabilized, Transparent

General Information	
Additive	UV stabilizer
Appearance	Clear/transparent
Processing Method	Injection molding
Multi-Point Data	Coefficient of Thermal Expansion vs. Temperature (ASTM E831)
	Flexural DMA (ASTM D4065)
	Shear DMA (ASTM D4065)
	Specific Heat vs. Temperature (ASTM D3417)
	Tensile Stress vs. Strain (ASTM D638)
	Thermal Conductivity vs. Temperature (ASTM E1530)
	Viscosity vs. Shear Rate (ASTM D3835)

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.20	g/cm ³	ASTM D792
--	1.17	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (265°C/2.16 kg)	15	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (265°C/2.16 kg)	15.0	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal method
Flow: 3.20mm	0.50 - 0.80	%	Internal method
Transverse flow: 3.20mm	0.40 - 0.60	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.050	%	ISO 62
Equilibrium, 23°C, 50% RH	0.20	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 10 sec)	74		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	1520	MPa	ASTM D638
--	1600	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	47.0	MPa	ASTM D638
Yield	55.0	MPa	ISO 527-2/50

Fracture ³	46.0	MPa	ASTM D638
Fracture	54.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	5.0	%	ASTM D638
Yield	> 5.0	%	ISO 527-2/50
Fracture ⁵	150	%	ASTM D638
Fracture	> 200	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ⁶	1680	MPa	ASTM D790
-- ⁷	1700	MPa	ISO 178
Flexural Stress			
--	78.0	MPa	ISO 178
Yield, 50.0mm span ⁸	71.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	10	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	73	J/m	ASTM D256
23°C	1100	J/m	ASTM D256
-30°C ¹⁰	7.0	kJ/m ²	ISO 180/1A
-10°C ¹¹	5.0	kJ/m ²	ISO 180/1A
23°C ¹²	8.0	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	95.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	79.0	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	75.0	°C	ASTM D648
1.8 MPa, unannealed, 100 mm span ¹³	80.0	°C	ISO 75-2/Ae
1.8 MPa, unannealed, 64.0mm span ¹⁴	78.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	91.0	°C	ASTM D1525 ¹⁵
--	96.0	°C	ISO 306/B120
Ball Pressure Test ¹⁶ (85°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			
Flow: -40 to 40°C	1.1E-4	cm/cm/°C	ASTM E831, ISO 11359-2
Flow: 23 to 60°C	9.0E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 40°C	1.1E-4	cm/cm/°C	ASTM E831, ISO 11359-2
Lateral: 23 to 60°C	9.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.23	W/m/K	ISO 8302
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	ASTM D257
Volume Resistivity	> 1.0E+15	ohms · cm	ASTM D257

Comparative Tracking Index (CTI)	PLC 0		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (3.00 mm)	V-2		UL 94
Glow Wire Flammability Index (1.00 mm)	750	°C	IEC 60695-2-12
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.539		ISO 489
Transmittance (2540 μm)	88.0	%	ASTM D1003
Haze (2540 μm)	1.0	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	65.6 - 76.7	°C	
Drying Time	3.0 - 5.0	hr	
Drying Time, Maximum	8.0	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 - 80	%	
Rear Temperature	238 - 249	°C	
Middle Temperature	238 - 260	°C	
Front Temperature	243 - 266	°C	
Nozzle Temperature	243 - 266	°C	
Processing (Melt) Temp	243 - 266	°C	
Mold Temperature	43.3 - 60.0	°C	
Back Pressure	0.172 - 0.517	MPa	
Screw Speed	20 - 100	rpm	
Vent Depth	0.013 - 0.020	mm	
NOTE			
1.	50 mm/min		
2.	Type 1, 50mm/min		
3.	Type 1, 50mm/min		
4.	Type 1, 50mm/min		
5.	Type 1, 50mm/min		
6.	1.3 mm/min		
7.	2.0 mm/min		
8.	1.3 mm/min		
9.	80*10*4 sp=62mm		
10.	80*10*4		
11.	80*10*4		
12.	80*10*4		
13.	120*10*4 mm		
14.	80*10*4 mm		
15.	标准 B (120°C/h), 载荷2 (50N)		
16.	Approximate maximum		

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