

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		
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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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



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