

XYLEX™ X8300 resin

Polycarbonate + Polyester

SABIC Innovative Plastics Europe

Message:

PC+Polyester, UV Stabilized, Transparent

General Information			
Additive	UV Stabilizer		
RoHS Compliance	RoHS Compliant		
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 : 3.20 mm	0.50 to 0.80	%	
Across Flow : 3.20 mm	0.40 to 0.60	%	
Water Absorption			ISO 62
Saturation, 23°C	0.050	%	
Equilibrium, 23°C, 50% RH	0.20	%	
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
Break ³	46.0	MPa	ASTM D638
Break	54.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	5.0	%	ASTM D638
Yield	> 5.0	%	ISO 527-2/50
Break ⁵	150	%	ASTM D638
Break	> 200	%	ISO 527-2/50

Flexural Modulus			
50.0 mm Span ⁶	1680	MPa	ASTM D790
-- ⁷	1700	MPa	ISO 178
Flexural Stress			
--	78.0	MPa	ISO 178
Yield, 50.0 mm 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, 3.20 mm	79.0	°C	ASTM D648
1.8 MPa, Unannealed, 3.20 mm	75.0	°C	ASTM D648
1.8 MPa, Unannealed, 100 mm Span ¹³	80.0	°C	ISO 75-2/Ae
1.8 MPa, Unannealed, 64.0 mm 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
CLTE			
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
Transverse : -40 to 40°C	1.1E-4	cm/cm/°C	ASTM E831, ISO 11359-2
Transverse : 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 to 76.7	°C	
Drying Time	3.0 to 5.0	hr	
Drying Time, Maximum	8.0	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 to 80	%	
Rear Temperature	238 to 249	°C	
Middle Temperature	238 to 260	°C	
Front Temperature	243 to 266	°C	
Nozzle Temperature	243 to 266	°C	
Processing (Melt) Temp	243 to 266	°C	
Mold Temperature	43.3 to 60.0	°C	
Back Pressure	0.172 to 0.517	MPa	
Screw Speed	20 to 100	rpm	
Vent Depth	0.013 to 0.020	mm	

NOTE

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|-----|------------------------------------|
| 1. | 50 mm/min |
| 2. | Type I, 50 mm/min |
| 3. | Type I, 50 mm/min |
| 4. | Type I, 50 mm/min |
| 5. | Type I, 50 mm/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. | Rate B (120°C/h), Loading 2 (50 N) |
| 16. | Approximate maximum |

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