

XYLEX™ X8210 resin

Polycarbonate + Polyester
SABIC Innovative Plastics Europe

Message:
PC+POLYESTER alloy. Unreinforced, transparent, impact modified for low temperature ductility

General Information			
Additive	Impact Modifier		
Features	Ductile		
	High Clarity		
	Impact Modified		
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
--	1.16	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)			ASTM D1238
265°C/2.16 kg	10	g/10 min	
300°C/1.2 kg	14	g/10 min	
Melt Volume-Flow Rate (MVR)			ISO 1133
265°C/2.16 kg	10.0	cm ³ /10min	
300°C/1.2 kg	13.0	cm ³ /10min	
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	0.37	%	
Equilibrium, 23°C, 50% RH	0.15	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	1480	MPa	ASTM D638
--	1500	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	43.0	MPa	ASTM D638
Yield	45.0	MPa	ISO 527-2/50
Break ³	46.0	MPa	ASTM D638
Break	45.0	MPa	ISO 527-2/50

Tensile Elongation			
Yield ⁴	5.0	%	ASTM D638
Yield	4.6	%	ISO 527-2/50
Break ⁵	150	%	ASTM D638
Break	> 150	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁶	1600	MPa	ASTM D790
-- ⁷	1600	MPa	ISO 178
Flexural Stress			
--	58.0	MPa	ISO 178
Yield, 50.0 mm Span ⁸	65.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	71	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	200	J/m	ASTM D256
-20°C	640	J/m	ASTM D256
23°C	800	J/m	ASTM D256
-30°C ¹⁰	11	kJ/m ²	ISO 180/1A
-10°C ¹¹	30	kJ/m ²	ISO 180/1A
23°C ¹²	45	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	81.0	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	82.0	°C	ISO 75-2/Ae
1.8 MPa, Unannealed, 64.0 mm Span ¹⁴	81.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	97.0	°C	ASTM D1525, ISO 306/B120 12 ¹⁵
--	92.0	°C	ISO 306/B50
CLTE			
Flow : -40 to 40°C	1.1E-4	cm/cm/°C	ASTM E831
Flow : -40 to 40°C	8.3E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	1.1E-4	cm/cm/°C	ASTM E831
Transverse : -40 to 40°C	8.9E-5	cm/cm/°C	ISO 11359-2
Optical	Nominal Value	Unit	Test Method
Transmittance (2540 µm)	85.0	%	ASTM D1003
Haze (2540 µm)	4.0	%	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

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)

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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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