

XYLEX™ X7507 resin

Polycarbonate + Polyester

SABIC Innovative Plastics

Message:

F-1 weathering certified in natural color, specially designed for Pool & Spa applications.

General Information			
UL YellowCard	E121562-556887	E121562-556888	
Uses	Spas		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (265°C/2.16 kg)	8.0	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (265°C/2.16 kg)	5.00	cm³/10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.50 to 0.80	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.32	%	
Equilibrium, 23°C, 50% RH	0.12	%	
Outdoor Suitability (Natural)	f1		UL 746C
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2300	MPa	ASTM D638
--	2660	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	61.0	MPa	ASTM D638
Yield	62.0	MPa	ISO 527-2/50
Break ³	65.0	MPa	ASTM D638
Break	59.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	6.0	%	ASTM D638
Yield	5.4	%	ISO 527-2/50
Break ⁵	130	%	ASTM D638
Break	110	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁶	2320	MPa	ASTM D790
-- ⁷	2190	MPa	ISO 178
Flexural Stress			
--	92.0	MPa	ISO 178
Yield, 50.0 mm Span ⁸	96.0	MPa	ASTM D790

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	20	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	200	J/m	ASTM D256
23°C	990	J/m	ASTM D256
-30°C ¹⁰	6.0	kJ/m ²	ISO 180/1A
23°C ¹¹	9.0	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	79.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 3.20 mm	104	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹²	105	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	125	°C	ASTM D1525, ISO 306/B50 ¹¹ ¹³
--	127	°C	ISO 306/B120
CLTE			
Flow : -40 to 40°C	6.0E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Transverse : -40 to 40°C	7.0E-5	cm/cm/°C	ASTM E831
Transverse : -40 to 40°C	6.3E-5	cm/cm/°C	ISO 11359-2
Optical	Nominal Value	Unit	Test Method
Transmittance (2540 µm)	> 85.0	%	ASTM D1003
Haze (2540 µm)	1.6	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	82.2 to 93.3	°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	243 to 266	°C	
Front Temperature	249 to 271	°C	
Nozzle Temperature	249 to 271	°C	
Processing (Melt) Temp	249 to 271	°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.	5.0 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 mm
13.	Rate B (120°C/h), Loading 2 (50 N)

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