

XENOY™ X4820 resin

Polycarbonate + PBT

SABIC Innovative Plastics

Message:

XENOY X4820 is a high modulus PC/PBT Blend. This resin provides high chemical resistance, excellent impact, very low creep, low CTE, excellent fatigue and dimensional stability.

General Information			
UL YellowCard	E207780-100517339	E207780-100517340	
Features	Good dimensional stability		
	Impact resistance, high		
	Good creep resistance		
	Good chemical resistance		
	Fatigue resistance		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.25	g/cm ³	ASTM D792
--	1.26	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/5.0 kg)	10	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (265°C/5.0 kg)	12.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.95 - 1.1	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.42	%	ISO 62
Equilibrium, 23°C, 50% RH	0.14	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	3200	MPa	ASTM D638
--	3000	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	57.0	MPa	ASTM D638
Yield	58.0	MPa	ISO 527-2/50
Fracture ³	58.0	MPa	ASTM D638
Fracture	52.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	4.2	%	ASTM D638
Yield	4.2	%	ISO 527-2/50
Fracture ⁵	140	%	ASTM D638
Fracture	100	%	ISO 527-2/50

Flexural Modulus			
50.0mm span ⁶	2900	MPa	ASTM D790
-- ⁷	2850	MPa	ISO 178
Flexural Stress			
--	87.0	MPa	ISO 178
Yield, 50.0mm span ⁸	91.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	60	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	150	J/m	ASTM D256
23°C	700	J/m	ASTM D256
-30°C ¹⁰	15	kJ/m ²	ISO 180/1A
23°C ¹¹	55	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	60.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, unannealed, 3.20mm	98.0	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ¹²	94.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	130	°C	ASTM D1525 ¹³
--	132	°C	ISO 306/B50
--	134	°C	ISO 306/B120
Linear thermal expansion coefficient			ASTM E831, ISO 11359-2
Flow: -40 to 40°C	7.5E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Lateral: -40 to 40°C	1.1E-4	cm/cm/°C	ASTM E831, ISO 11359-2
Injection	Nominal Value	Unit	
Drying Temperature	110	°C	
Drying Time	4.0 - 6.0	hr	
Drying Time, Maximum	8.0	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	50 - 80	%	
Rear Temperature	238 - 260	°C	
Middle Temperature	243 - 266	°C	
Front Temperature	249 - 271	°C	
Nozzle Temperature	249 - 266	°C	
Processing (Melt) Temp	254 - 277	°C	
Mold Temperature	37.8 - 87.8	°C	
Back Pressure	0.345 - 0.689	MPa	
Screw Speed	40 - 80	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 mm
13.	标准 B (120°C/h), 载荷2 (50N)

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