XENOY™ X2420 resin

Polycarbonate + Polyester

SABIC Innovative Plastics Asia Pacific

Technical Data

Product Description	
Xenoy*X2420 is a 10% glass filled, high flow, impact modified, injection moldable grade designed for high flow and impact strength. X2420 has enhanced melt flowability, impact ductility and broad color space.	

General			
Filler / Reinforcement	• Glass Fiber Reinforcement, 10% Filler by Weight		
Additive	• Impact Modifier		
Features	• Ductile • Good Flow	• High Flow • High Impact Resistance	• Impact Modified
Processing Method	• Injection Molding		

Physical	Nominal Value Unit	Test Method
Specific Gravity	1.28 g/cm³	ASTM D792 ISO 1183
Melt Volume-Flow Rate (MVR)		ISO 1133
265°C/2.16 kg	12.0 cm³/10min	
300°C/1.2 kg	26.0 cm³/10min	
Molding Shrinkage		Internal Method
Flow : 3.20 mm	0.15 to 0.25 %	
Across Flow : 3.20 mm	0.30 to 0.40 %	
Water Absorption		ISO 62
Saturation, 23°C	0.020 %	
Equilibrium, 23°C, 50% RH	0.040 %	

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus [4]	3800 MPa	ASTM D638
Tensile Strength		
Yield [5]	50.0 MPa	ASTM D638
Yield	51.0 MPa	ISO 527-2/5
Break [5]	35.0 MPa	ASTM D638
Break	37.0 MPa	ISO 527-2/5
Tensile Elongation		
Yield [5]	3.0 %	ASTM D638
Yield	3.0 %	ISO 527-2/5
Break	7.0 %	ISO 527-2/5
Flexural Modulus [6] (50.0 mm Span)	3500 MPa	ASTM D790
Flexural Strength [6] (Yield, 50.0 mm Span)	90.0 MPa	ASTM D790

Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength [7]		ISO 179/1eA
-30°C	7.0 kJ/m²	
23°C	15 kJ/m²	
Charpy Unnotched Impact Strength [7]		ISO 179/1eU
-30°C	95 kJ/m²	
23°C	95 kJ/m²	

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Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	210	J/m	ASTM D256
-30°C [8]	8.0	kJ/m²	ISO 180/1A
23°C [8]	14	kJ/m²	ISO 180/1A
Unnotched Izod Impact			
23°C	1600	J/m	ASTM D4812
-30°C [8]	74	kJ/m²	ISO 180/1U
23°C [8]	110	kJ/m²	ISO 180/1U
Instrumented Dart Impact			ASTM D3763
23°C, Total Energy	36.0	J	

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 3.20 mm	111	°C	
1.8 MPa, Unannealed, 3.20 mm	101	°C	
Vicat Softening Temperature	118	°C	ISO 306/B120
CLTE			
Flow : -40 to 40°C	0.000050	cm/cm/°C	ASTM E831
Flow : 23 to 80°C	0.000040	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	0.000080	cm/cm/°C	ASTM E831
Transverse : 23 to 80°C	0.000090	cm/cm/°C	ISO 11359-2
RTI Elec	75.0	°C	UL 746
RTI Imp	75.0	°C	UL 746
RTI Str	75.0	°C	UL 746

Flammability	Nominal Value	Test Method
Flame Rating (0.400 mm)	HB	UL 94

Injection	Nominal Value	Unit
Drying Temperature	95.0 to 105	°C
Drying Time	3.0 to 4.0	hr
Drying Time, Maximum	8.0	hr
Suggested Max Moisture	0.020	%
Suggested Shot Size	30 to 80	%
Hopper Temperature	60.0 to 80.0	°C
Rear Temperature	250 to 280	°C
Middle Temperature	255 to 290	°C
Front Temperature	255 to 290	°C
Nozzle Temperature	260 to 290	°C
Processing (Melt) Temp	260 to 290	°C
Mold Temperature	60.0 to 90.0	°C
Back Pressure	0.300 to 0.700	MPa
Screw Speed	40 to 70	rpm
Vent Depth	0.038 to 0.076	mm