XENOY™ RESIN X2420

REGION ASIA

DESCRIPTION

XENOYX2420 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.

TYPICAL PROPERTY VALUES

Revision 20181012

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	50	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	35	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	3	%	ASTM D 638
Tensile Modulus, 5 mm/min	3800	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	90	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	3500	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	51	MPa	ISO 527
Tensile Stress, break, 5 mm/min	37	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3	%	ISO 527
Tensile Strain, break, 5 mm/min	7	%	ISO 527
IMPACT			
Izod Impact, unnotched, 23°C	1600	J/m	ASTM D 4812
Izod Impact, notched, 23°C	205	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	36	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	110	kJ/m^2	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	74	kJ/m^2	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	14	kJ/m^2	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	8	kJ/m^2	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	15	kJ/m^2	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	7	kJ/m^2	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	95	kJ/m^2	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	95	kJ/m^2	ISO 179/1eU
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	111	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	101	°C	ASTM D 648
CTE, -40°C to 40°C, flow	5.E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	8.E-05	1/°C	ASTM E 831
CTE, 23°C to 80°C, flow	4.E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	9.E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/120	118	°C	ISO 306
Relative Temp Index, Elec	75	°C	UL 746B
Relative Temp Index, Mech w/impact	75	°C	UL 746B
Relative Temp Index, Mech w/o impact	75	°C	UL 746B
PHYSICAL			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Specific Gravity	1.28	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.15 – 0.25	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.3 – 0.4	%	SABIC method
Density	1.28	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	0.02	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.04	%	ISO 62
Melt Volume Rate, MVR at 265°C/2.16 kg	12	cm³/10 min	ISO 1133
Melt Volume Rate, MVR at 300°C/1.2 kg	26	cm³/10 min	ISO 1133
FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating	0.4	mm	UL 94
INJECTION MOLDING			
Drying Temperature	95 – 105	°C	
Drying Time	3 – 4	hrs	
Drying Time (Cumulative)	8	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	260 – 290	°C	
Nozzle Temperature	260 – 290	°C	
Front - Zone 3 Temperature	255 – 290	°C	
Middle - Zone 2 Temperature	255 – 290	°C	
Rear - Zone 1 Temperature	250 – 280	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	60 – 90	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	30 – 80	%	
Vent Depth	0.038 – 0.076	mm	

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