XENOY™ RESIN X2500UV

REGION EUROPE

DESCRIPTION

XENOY X2500UV is a medium viscosity, unfilled, UV stabilized, elastomer modified PC/PET blend with excellent heat and impact performance. ISO1043-label: PC+PET-I.

TYPICAL PROPERTY VALUES

Revision 20190925

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield	53	MPa	ASTM D 638
Tensile Stress, yld, Type I, 50 mm/min	56	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	55	MPa	ASTM D 638
Tensile Strain, yield	5	%	ASTM D 638
Tensile Strain, break	100	%	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	80	%	ASTM D 638
Tensile Modulus, 50 mm/min	2200	MPa	ASTM D 638
Flexural Stress	79	MPa	ASTM D 790
Flexural Stress, yld, 1.3 mm/min, 50 mm span	79	MPa	ASTM D 790
Flexural Modulus	2100	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2150	MPa	ASTM D 790
Taber Abrasion, CS-17, 1 kg	20	mg/1000cy	SABIC method
Tensile Stress, yield, 50 mm/min	57	MPa	ISO 527
Tensile Stress, break, 50 mm/min	56	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	5	%	ISO 527
Tensile Strain, break, 50 mm/min	70	%	ISO 527
Tensile Modulus, 1 mm/min	2200	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	80	MPa	ISO 178
Flexural Modulus, 2 mm/min	2150	MPa	ISO 178
Ball Indentation Hardness, H358/30	95	MPa	ISO 2039-1
IMPACT			
Izod Impact, notched, 23°C	600	J/m	ASTM D 256
Izod Impact, notched, 0°C	450	J/m	ASTM D 256
Izod Impact, notched, -30°C	200	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	60	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 -30°C	NB	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	40	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	25	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -40°C	15	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	50	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	30	kJ/m²	ISO 179/1eA
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	NB	kJ/m²	ISO 179/1eU
THERMAL			

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate B/50	135	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	108	°C	ASTM D 648
CTE, -40°C to 40°C, flow	8.E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	8.5E-05	1/°C	ASTM E 831
Thermal Conductivity	0.18	W/m-°C	ISO 8302
CTE, 23°C to 80°C, flow	8.2E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	8.7E-05	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate A/50	145	°C	ISO 306
Vicat Softening Temp, Rate B/50	135	°C	ISO 306
Vicat Softening Temp, Rate B/120	136	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	108	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.21	-	ASTM D 792
Mold Shrinkage on Tensile Bar, flow	0.5 – 0.8	%	SABIC method
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.8	%	SABIC method
Mold Shrinkage on Tensile Bar, xflow	0.5 – 0.8	%	SABIC method
Melt Flow Rate, 265°C/2.16kgf	9	g/10 min	ASTM D 1238
Density	1.21	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	0.7	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62
Melt Volume Rate, MVR at 265°C/1.2 kg	4	cm³/10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	>1.E+14	Ohm-cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ohm	IEC 60093
Dielectric Strength, in oil, 3.2 mm	17	kV/mm	IEC 60243-1
Relative Permittivity, 1 MHz	3.1	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.002	-	IEC 60250
Dissipation Factor, 1 MHz	0.02	-	IEC 60250
Relative Permittivity, 50/60 Hz	3.3	-	IEC 60250
FLAME CHARACTERISTICS			
UL Compliant, 94HB Flame Class Rating	1.5	mm	UL 94 by SABIC-IP
Glow Wire Flammability Index 750°C, passes at	2.7	mm	IEC 60695-2-12
INJECTION MOLDING			
Drying Temperature	110 – 120	°C	
Drying Time	4 – 6	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	265 – 275	°C	
Nozzle Temperature	260 – 275	°C	
Front - Zone 3 Temperature	260 – 280	°C	
Middle - Zone 2 Temperature	250 – 275	°C	
Rear - Zone 1 Temperature	240 – 270	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	60 – 100	°C	

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