XENOY™ RESIN HX6600HP

REGION ASIA

DESCRIPTION

Xenoy HX6600HP is PBT based semi-crystalline blend with balanced flow and impact properties. Improved chemical resistance against lab disinfectants and chemicals for healthcare enclosure and housing applications. Healthcare management of change, biocompatible (ISO10993 or USP Class VI). EtO, Gamma and Steam sterilizable.

TYPICAL PROPERTY VALUES

Revision 20190925

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	43	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	35	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	4	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	150	%	ASTM D 638
Tensile Modulus, 5 mm/min	1900	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	43	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	1900	MPa	ASTM D 790
Tensile Stress, yield, 50 mm/min	44	MPa	ISO 527
Tensile Stress, break, 50 mm/min	37	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4	%	ISO 527
Tensile Strain, break, 50 mm/min	100	%	ISO 527
Tensile Modulus, 1 mm/min	1900	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	64	MPa	ISO 178
Flexural Modulus, 2 mm/min	1800	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	800	J/m	ASTM D 256
Izod Impact, notched, -30°C	750	J/m	ASTM D 256
Multiaxial Impact	100	J	ISO 6603
Instrumented Impact Total Energy, 23°C	100	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 -40°C	NB	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	65	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	20	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	70	kJ/m²	ISO 179/1eA
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	NB	kJ/m²	ISO 179/1eU
THERMAL			
Vicat Softening Temp, Rate B/50	117	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	60	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.E-04	1/°C	ISO 11359-2
CTE, 23°C to 60°C, flow	1.3E-04	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	117	°C	ISO 306

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate B/120	120	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	95	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	60	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.21	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	1.2 – 1.6	%	SABIC method
Melt Flow Rate, 250°C/5.0 kgf	11	g/10 min	ASTM D 1238
Density	1.21	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	0.4	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.05	%	ISO 62
Melt Volume Rate, MVR at 250°C/5.0 kg	10	cm³/10 min	ISO 1133
Melt Viscosity, 260°C, 1500 sec-1	210	Pa-s	ISO 11443
INJECTION MOLDING			
Drying Temperature	90 – 100	°C	
Drying Time	2 – 4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	255 – 270	°C	
Nozzle Temperature	250 – 265	°C	
Front - Zone 3 Temperature	250 – 270	°C	
Middle - Zone 2 Temperature	240 – 265	°C	
Rear - Zone 1 Temperature	230 – 250	°C	
Hopper Temperature	40 – 60	°C	
Mold Temperature	60 – 80	°C	

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