XENOY™ RESIN 1760H

REGION ASIA

DESCRIPTION

XENOY™ 1760H resin is a 11% glass fiber reinforced polycarbonate / polybutylene terephthalate (PC/PBT). Impact modified, chemically resistant. Excellent physical property retention in automotive exteriors.

TYPICAL PROPERTY VALUES

Revision 20230418

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield, 5 mm/min	80	MPa	ISO 527
Tensile Stress, break, 5 mm/min	80	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3	%	ISO 527
Tensile Strain, break, 5 mm/min	3	%	ISO 527
Tensile Modulus, 1 mm/min	4200	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	127	MPa	ISO 178
Flexural Modulus, 2 mm/min	4000	MPa	ISO 178
Tensile Stress, yld, Type I, 5 mm/min	80	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	80	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	3	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	3	%	ASTM D638
Tensile Modulus, 5 mm/min	4200	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	127	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	4000	MPa	ASTM D790
IMPACT			
Izod Impact, notched 80*10*4 +23°C	10	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 0°C	8	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	8	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	50	kJ/m²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	10	kJ/m²	ISO 179/1eA
Charpy 0°C, V-notch Edgew 80*10*4 sp=62mm	8	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	8	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	45	kJ/m²	ISO 179/1eU
Izod Impact, notched, 23°C	120	J/m	ASTM D256
Izod Impact, notched, 0°C	100	J/m	ASTM D256
Izod Impact, notched, -30°C	100	J/m	ASTM D256
Izod Impact, unnotched, 23°C	600	J/m	ASTM D4812
THERMAL			
Vicat Softening Temp, Rate B/50	130	°C	ISO 306
Vicat Softening Temp, Rate B/120	130	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	101	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	117	°C	ISO 75/Bf
CTE, -40°C to 40°C, flow	43	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	80	1/°C	ISO 11359-2

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate B/50	130	°C	ASTM D1525
HDT, 1.82 MPa, 3.2mm, unannealed	101	°C	ASTM D648
CTE, -40°C to 40°C, flow	43	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	80	1/°C	ASTM E831
PHYSICAL			
Density	1.3	g/cm³	ISO 1183
Melt Volume Rate, MVR at 250°C/5.0 kg	9	cm³/10 min	ISO 1133
Melt Volume Rate, MVR at 265°C/5.0 kg	15	cm³/10 min	ISO 1133
Water Absorption, (23°C/saturated)	0.5	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62
Specific Gravity	1.3	-	ASTM D792
Melt Flow Rate, 250°C/5.0 kgf	12	g/10 min	ASTM D1238
Melt Flow Rate, 265°C/5.0 kgf	18	g/10 min	ASTM D1238
Water Absorption, (23°C/24hrs)	0.20	%	ASTM D570
Moisture Absorption, (23°C/50% RH/24 hrs)	0.10	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm	0.4 – 0.6	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.4 – 0.6	%	SABIC method
INJECTION MOLDING			
Drying Temperature	110	°C	
Drying Time	4 – 6	Hrs	
Drying Time (Cumulative)	8	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	260 – 280	°C	
Nozzle Temperature	255 – 275	°C	
Front - Zone 3 Temperature	260 – 280	°C	
Middle - Zone 2 Temperature	255 – 275	°C	
Rear - Zone 1 Temperature	250 – 270	°C	
Mold Temperature	65 – 95	°C	
Back Pressure	0.3 – 0.6	MPa	
Screw Speed	50 – 80	rpm	
Shot to Cylinder Size	50 – 80	%	
Vent Depth	0.013 – 0.02	mm	

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