XENOY™ RESIN 1760E

REGION ASIA

DESCRIPTION

11% Glass Reinforced alloy. Impact/chemical resistant. Excellent physical property retention in automotive exteriors. High flow version of XENOY 1760 resin.

TYPICAL PROPERTY VALUES

Revision 20190925

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	84	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	84	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	3	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	3	%	ASTM D 638
Tensile Modulus, 5 mm/min	5310	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	131	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	3910	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	84	MPa	ISO 527
Tensile Stress, break, 5 mm/min	84	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	4800	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	133	MPa	ISO 178
Flexural Modulus, 2 mm/min	4010	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	63	J/m	ASTM D 256
Izod Impact, notched, -30°C	60	J/m	ASTM D 256
Instrumented Impact, Energy @ peak, -20°C	4	J	ASTM D 3763
Instrumented Impact Energy @ peak, -30	3	J	ASTM D 3763
Instrumented Impact Total Energy, 23°C	8	J	ASTM D 3763
Instrumented Impact Total Energy, -30°C	3	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	3	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	3	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	12	kJ/m²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	121	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	125	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	116	°C	ASTM D 648
CTE, -40°C to 40°C, flow	3.9E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.6E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	3.9E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.6E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	135	°C	ISO 306
Vicat Softening Temp, Rate B/120	130	°C	ISO 306

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	101	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.3	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.4 – 0.6	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.4 – 0.6	%	SABIC method
Melt Flow Rate, 250°C/5.0 kgf	15	g/10 min	ASTM D 1238
Density	1.3	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	0.5	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62
Melt Volume Rate, MVR at 265°C/5.0 kg	27	cm³/10 min	ISO 1133
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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