

# 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 20180905

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
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
<b>IMPACT</b>			
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/m <sup>2</sup>	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	3	kJ/m <sup>2</sup>	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	12	kJ/m <sup>2</sup>	ISO 179/1eA
<b>THERMAL</b>			
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

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	101	°C	ISO 75/Af
<b>PHYSICAL</b>			
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/cm <sup>3</sup>	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	cm <sup>3</sup> /10 min	ISO 1133
<b>INJECTION MOLDING</b>			
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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