XENOY™ Resin 6370
Americas: COMMERCIAL

30% glass-reinforced, impact modified thermoplastic alloy. Improved toughness and ductility.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	980	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	920	kgf/cm²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	3	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	4	%	ASTM D 638
Tensile Modulus, 5 mm/min	99400	kgf/cm²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	1520	kgf/cm²	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	1400	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	54800	kgf/cm²	ASTM D 790
Hardness, Rockwell R	109	-	ASTM D 785
Tensile Stress, yield, 5 mm/min	105	MPa	ISO 527
Tensile Stress, break, 5 mm/min	3	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3	%	ISO 527
Tensile Strain, break, 5 mm/min	105	%	ISO 527
Tensile Modulus, 1 mm/min	8500	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	154	MPa	ISO 178
Flexural Modulus, 2 mm/min	7750	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	65	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	17	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	11	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	50	cm-kgf	ASTM D 3763
Instrumented Impact Total Energy, 23°C	173	cm-kgf	ASTM D 3763

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(2) Only typical data for selection purposes. Not to be used for part or tool design.
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
(4) Internal measurements according to UL standards.
(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

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TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
IMPACT			
Izod Impact, notched 80*10*4 +23°C	10	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	6	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	9	kJ/m²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	153	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	163	°C	ASTM D 648
HDT, 0.45 MPa, 6.4 mm, unannealed	204	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	149	°C	ASTM D 648
CTE, -40°C to 40°C, flow	2.7E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.1E-04	1/°C	ASTM E 831
CTE, 60°C to 138°C, flow	1.98E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	2.7E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.1E-04	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	148	°C	ISO 306
Vicat Softening Temp, Rate B/120	150	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	155	°C	ISO 75/Af
Relative Temp Index, Elec	140	°C	UL 746B
Relative Temp Index, Mech w/impact	130	°C	UL 746B
Relative Temp Index, Mech w/o impact	140	°C	UL 746B
PHYSICAL			
Specific Gravity	1.44	-	ASTM D 792
Specific Volume	0.7	cm³/g	ASTM D 792
Water Absorption, 24 hours	0.09	%	ASTM D 570
Mold Shrinkage, flow, 0.75-2.3 mm (5)	0.3 - 0.4	%	SABIC Method
Mold Shrinkage, flow, 2.3-4.6 mm (5)	0.4 - 0.5	%	SABIC Method

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PHYSICAL			
Mold Shrinkage, xflow, 0.75-2.3 mm (5)	0.4 - 0.7	%	SABIC Method
Mold Shrinkage, xflow, 2.3-4.6 mm (5)	0.7 - 0.9	%	SABIC Method
Melt Flow Rate, 250°C/5.0 kgf	24	g/10 min	ASTM D 1238
Density	1.44	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 250°C/5.0 kg	12	cm³/10 min	ISO 1133
Melt Volume Rate, MVR at 265°C/5.0 kg	19	cm³/10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	4.8E+15	Ohm-cm	ASTM D 257
Dielectric Strength, in air, 3.2 mm	20	kV/mm	ASTM D 149
Dielectric Strength, in oil, 1.6 mm	27	kV/mm	ASTM D 149
Relative Permittivity, 100 Hz	4	-	ASTM D 150
Relative Permittivity, 1 MHz	4	-	ASTM D 150
Dissipation Factor, 100 Hz	0.003	-	ASTM D 150
Dissipation Factor, 1 MHz	0.02	-	ASTM D 150
Arc Resistance, Tungsten {PLC}	5	PLC Code	ASTM D 495
Hot Wire Ignition {PLC}	1	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	1	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	3	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	2	PLC Code	UL 746A
FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating (3)	1.5	mm	UL 94

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
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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