



XENYO™ Resin 1760
Americas: COMMERCIAL

11% Glass Reinforced PBT+PC alloy. Impact/chemical resistant. Excellent physical property retention in automotive exteriors.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	850	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	850	kgf/cm ²	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	54200	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	1330	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	39800	kgf/cm ²	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	2	%	ISO 527
Tensile Modulus, 1 mm/min	4950	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	134	MPa	ISO 178
Flexural Modulus, 2 mm/min	4050	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	9	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	8	cm-kgf/cm	ASTM D 256
Instrumented Impact, Energy @ peak, -20°C	40	cm-kgf	ASTM D 3763
Instrumented Impact Energy @ peak, -30	30	cm-kgf	ASTM D 3763
Instrumented Impact Total Energy, 23°C	81	cm-kgf	ASTM D 3763
Instrumented Impact Total Energy, -30°C	30	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	3	kJ/m ²	ISO 180/1A





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IMPACT			
Izod Impact, notched 80*10*4 -30°C	3	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	16	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	121	°C	ASTM D 1525
HDT, 1.82 MPa, 6.4 mm, unannealed	115	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.7E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	3.8E-05	1/°C	ASTM E 831
CTE, -40°C to 95°C, flow	4.5E-05	1/°C	ASTM E 831
CTE, -40°C to 95°C, xflow	7.38E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	7.7E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	3.8E-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
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	104	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.3	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.4 - 0.6	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm (5)	0.4 - 0.6	%	SABIC Method
Density	1.3	g/cm ³	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	12	cm ³ /10 min	ISO 1133





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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

