XYLEX™ Resin X8519
Americas: COMMERCIAL

PC+POLYESTER, Injection Molding Transparency

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	580	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	450	kgf/cm²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	6	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	91	%	ASTM D 638
Tensile Modulus, 50 mm/min	20400	kgf/cm²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	840	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	22100	kgf/cm²	ASTM D 790
Tensile Stress, yield, 50 mm/min	56	MPa	ISO 527
Tensile Stress, break, 50 mm/min	52	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	6	%	ISO 527
Tensile Strain, break, 50 mm/min	118	%	ISO 527
Tensile Modulus, 1 mm/min	1940	MPa	ISO 527
Flexural Stress, break, 2 mm/min	85	MPa	ISO 178
Flexural Modulus, 2 mm/min	1900	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	49	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	3	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	683	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	14	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -10°C	7	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	22	kJ/m²	ISO 179/1eA

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THERMAL			
Vicat Softening Temp, Rate B/50	112	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	107	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	95	°C	ASTM D 648
CTE, -40°C to 40°C, flow	6.46E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.48E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	6.4E-06	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.38E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, flow	6.47E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	6.66E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	113	°C	ISO 306
Vicat Softening Temp, Rate B/120	116	°C	ISO 306
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	97	°C	ISO 75/Ae
PHYSICAL			
Specific Gravity	1.21	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.47	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm (5)	0.48	%	SABIC Method
Melt Flow Rate, 265°C/2.16kgf	13	g/10 min	ASTM D 1238
Density	1.21	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.23	%	ISO 62
Melt Volume Rate, MVR at 265°C/2.16 kg	12	cm³/10 min	ISO 1133
OPTICAL			
Light Transmission, 2.54 mm	87	%	ASTM D 1003
Haze, 2.54 mm	0.3	%	ASTM D 1003

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	65 - 75	°C
Drying Time	3 - 5	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	245 - 265	°C
Nozzle Temperature	245 - 265	°C
Front - Zone 3 Temperature	245 - 265	°C
Middle - Zone 2 Temperature	240 - 260	°C
Rear - Zone 1 Temperature	240 - 250	°C
Mold Temperature	45 - 60	°C
Back Pressure	0.2 - 0.5	MPa
Screw Speed	20 - 100	rpm
Shot to Cylinder Size	40 - 80	%
Vent Depth	0.013 - 0.02	mm

• Parts may initially appear hazy directly from the mold, but will clear upon reaching ambient temperature.