

XYLEX™ Resin X8210 Americas: COMMERCIAL

PC+POLYESTER alloy. Unreinforced, transparent, impact modified for low temperature ductility

YPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	430	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	460	kgf/cm²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	150	%	ASTM D 638
Tensile Modulus, 50 mm/min	15000	kgf/cm²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	660	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	16300	kgf/cm²	ASTM D 790
Tensile Stress, yield, 50 mm/min	45	MPa	ISO 527
Tensile Stress, break, 50 mm/min	45	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4.6	%	ISO 527
Tensile Strain, break, 50 mm/min	>150	%	ISO 527
Tensile Modulus, 1 mm/min	1500	MPa	ISO 527
Flexural Stress, break, 2 mm/min	58	MPa	ISO 178
Flexural Modulus, 2 mm/min	1600	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	81	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -20°C	65	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	20	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	825	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	45	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -10°C	30	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	11	kJ/m²	ISO 180/1A

Source GMD, last updated:

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(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 PROPERTIES¹ **TYPICAL VALUE** Unit **Standard IMPACT** ISO 179/1eA Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm 71 kJ/m² **THERMAL** ASTM D 1525 Vicat Softening Temp, Rate B/50 97 °C HDT, 0.45 MPa, 3.2 mm, unannealed 79 °С ASTM D 648 ASTM D 648 HDT, 1.82 MPa, 3.2mm, unannealed 75 °C ASTM E 831 CTE, -40°C to 40°C, flow 1.1E-04 1/°C ASTM E 831 CTE, -40°C to 40°C, xflow 1.1E-04 1/°C CTE, -40°C to 40°C, flow 8.3E-05 1/°C ISO 11359-2 ISO 11359-2 CTE, -40°C to 40°C, xflow 8.9E-05 1/°C

Vicat Softening Temp, Rate B/50	92	°C	ISO 306
Vicat Softening Temp, Rate B/120	97	°C	ISO 306
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	82	°C	ISO 75/Ae
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	81	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.2	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.5 - 0.8	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm (5)	0.4 - 0.6	%	SABIC Method
Melt Flow Rate, 265°C/2.16kgf	10	g/10 min	ASTM D 1238
Melt Flow Rate, 300°C/1.2 kgf	14	g/10 min	ASTM D 1238
Density	1.16	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	0.37	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62
Melt Volume Rate, MVR at 265°C/2.16 kg	10	cm³/10 min	ISO 1133
Melt Volume Rate, MVR at 300°C/1.2 kg	13	cm³/10 min	ISO 1133
OPTICAL			
Light Transmission, 2.54 mm	85	%	ASTM D 1003

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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
OPTICAL Haze, 2.54 mm	4	%	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.

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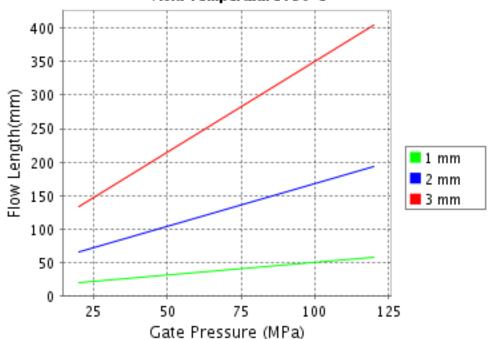
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CALCULATED FLOW LENGTH INDICATION Moldflow® Radial Flow Analysis XYLEX* X8210

Melt Temperature: 280°C Mold Temperature: 90°C



Note: Technical support is recommended if Gate Pressure is greater than 80 MPa. Contact your local representative.

Moldflow is a registered trademark of the Moldflow Corporation.

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