XYLEX™ RESIN X8210

REGION ASIA

DESCRIPTION

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

TYPICAL PROPERTY VALUES

Revision 20190925

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	43	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	46	MPa	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	1480	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	65	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	1600	MPa	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	800	J/m	ASTM D 256
Izod Impact, notched, -20°C	640	J/m	ASTM D 256
Izod Impact, notched, -30°C	200	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	81	J	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
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	71	kJ/m²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	97	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	79	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	75	°C	ASTM D 648
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	ASTM E 831
CTE, -40°C to 40°C, flow	8.3E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	8.9E-05	1/°C	ISO 11359-2
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

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PHYSICAL			
Specific Gravity	1.2	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.8	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	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
Haze, 2.54 mm	4	%	ASTM D 1003
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	

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