XYLEX™ RESIN X8300

REGION ASIA

DESCRIPTION

PC+Polyester, UV Stabilized, Transparent

TYPICAL PROPERTY VALUES

Revision 20191031

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	47	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	1520	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	71	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	1680	MPa	ASTM D 790
Hardness, Shore D, 10S reading	73	-	ASTM D 2240
Tensile Stress, yield, 50 mm/min	55	MPa	ISO 527
Tensile Stress, break, 50 mm/min	54	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	>5	%	ISO 527
Tensile Strain, break, 50 mm/min	>200	%	ISO 527
Tensile Modulus, 1 mm/min	1600	MPa	ISO 527
Flexural Stress, break, 2 mm/min	78	MPa	ISO 178
Flexural Modulus, 2 mm/min	1700	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	1120	J/m	ASTM D 256
Izod Impact, notched, -30°C	73	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	95	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	8	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -10°C	5	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	7	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	10	kJ/m²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	91	°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	1.05E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.05E-04	1/°C	ASTM E 831
Thermal Conductivity	0.23	W/m-°C	ISO 8302
CTE, -40°C to 40°C, flow	1.05E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.05E-04	1/°C	ISO 11359-2
CTE, 23°C to 60°C, flow	9.E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	9.E-05	1/°C	ISO 11359-2
Ball Pressure Test, approximate maximum	85	°C	IEC 60695-10-2

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate B/120	96	°C	ISO 306
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	80	°C	ISO 75/Ae
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	78	°C	ISO 75/Af
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	15	g/10 min	ASTM D 1238
Density	1.17	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	0.05	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62
Melt Volume Rate, MVR at 265°C/2.16 kg	15	cm³/10 min	ISO 1133
OPTICAL			
Light Transmission, 2.54 mm	88	%	ASTM D 1003
Haze, 2.54 mm	1	%	ASTM D 1003
Refractive Index	1.539	-	ISO 489
ELECTRICAL			
Volume Resistivity	>1.E+15	Ohm-cm	ASTM D 257
Surface Resistivity	>1.E+15	Ohm	ASTM D 257
Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
FLAME CHARACTERISTICS			
UL Yellow Card Link	E207780-557181	-	-
UL Recognized, 94V-2 Flame Class Rating	3	mm	UL 94
Glow Wire Flammability Index 750°C, passes at	1	mm	IEC 60695-2-12
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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