



Lexan* Resin XHT8141

Asia Pacific: COMMERCIAL

XHT8141 is a medium flow, high heat polycarbonate copolymer. It is available in a limited number of opaque colors.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	UNIT	STANDARD
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	810	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	660	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	7.5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	20	%	ASTM D 638
Tensile Modulus, 50 mm/min	29000	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	1320	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	27500	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 50 mm/min	80	MPa	ISO 527
Tensile Stress, break, 50 mm/min	65	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	7.5	%	ISO 527
Tensile Strain, break, 50 mm/min	20	%	ISO 527
Tensile Modulus, 1 mm/min	2800	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	110	MPa	ISO 178
Flexural Modulus, 2 mm/min	2700	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	9	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	5	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	530	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*3 +23°C	NB	kJ/m ²	ISO 180/1U
Izod Impact, unnotched 80*10*3 -30°C	NB	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*3 +23°C	8	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*3 -30°C	7	kJ/m ²	ISO 180/1A



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IMPACT			
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	7	kJ/m ²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm	5	kJ/m ²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m ²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm	NB	kJ/m ²	ISO 179/1eU
THERMAL			
Vicat Softening Temp, Rate B/50	212	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	208	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	192	°C	ASTM D 648
CTE, -40°C to 150°C, flow	7.E-05	1/°C	ASTM E 831
CTE, -40°C to 150°C, xflow	7.E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	7.E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	212	°C	ISO 306
Vicat Softening Temp, Rate B/120	212	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	206	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	188	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.22	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.6 - 1	%	SABIC Method
Melt Flow Rate, 330°C/2.16 kgf	7.5	g/10 min	ASTM D 1238
Density	1.22	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	1	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.5	%	ISO 62
Melt Volume Rate, MVR at 330°C/2.16kg	7	cm ³ /10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	8.E+16	Ohm-cm	ASTM D 257



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ELECTRICAL			
Surface Resistivity	4.5E+13	Ohm	ASTM D 257
Dielectric Strength, in air, 1.6 mm	23	kV/mm	ASTM D 149
Dissipation Factor, 50/60 Hz	0.05	-	ASTM D 150
Dissipation Factor, 1 MHz	0.01	-	ASTM D 150
FLAME CHARACTERISTICS			
Glow Wire Flammability Index 960°C, passes at	3	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 3.0 mm	825	°C	IEC 60695-2-13
Oxygen Index (LOI)	40	%	ISO 4589



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PROCESSING PARAMETERS	TYPICAL VALUE	UNIT
Injection Molding		
Drying Temperature	135	°C
Drying Time	4 - 6	hrs
Drying Time (Cumulative)	10	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	350 - 370	°C
Nozzle Temperature	350 - 370	°C
Front - Zone 3 Temperature	350 - 370	°C
Middle - Zone 2 Temperature	345 - 365	°C
Rear - Zone 1 Temperature	340 - 360	°C
Mold Temperature	135 - 165	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	40 - 70	rpm
Shot to Cylinder Size	40 - 60	%
Vent Depth	0.025 - 0.076	mm