

Description

Lexan MR AC flame-retardant sheet is a two-side, hard-coated polycarbonate material offering excellent impact resistance, optical clarity and the state-of-the-art in abrasion and UV resistance. Lexan MR AC sheet is specifically designed for aircraft window dust covers, acoustical panels, visors, diffusers, and any other similar application not requiring forming.

Typical Property Values ♦

Property	Test Method	Unit	Value
Physical			
Specific Gravity (color dependent)	ASTM D792	-	1.20 - 1.27
Water Absorption, Equilibrium, 24 hrs.	ASTM D570	%	0.2
Sound Transmission (STC Ratings 36"x84")	ASTM E9070	-	
@ .125"			25
@ .187"			29
Abrasion Resistance, CS10F wheels, 500 gram load, 100 cycles	ASTM D1044-76	%	1-4
Mechanical			
Tensile Strength			
@ Yield			10,000
Ultimate			9,500
Tensile Modulus	ASTM D638	psi	245,000
Tensile Elongation, Ultimate	ASTM D638	%	>80
Flexural Strength (Gauge Dependent)#	ASTM D790	psi	14,000
Flexural Modulus (Gauge Dependent)#	ASTM D790	psi	350,000
Dynatup Impact Strength, 1/2" dia. dart (Gauge Dependent)#			
@ 73°F	ASTM D3763	ft-lbs	50
Izod Impact Strength (Gauge Dependent)#	ASTM D256A	ft-lbs/in	
Notched @ 73°F			2.4
Unnotched @ 73°F			NB
Gardner Impact Strength, round tip (Gauge Dependent)#			
@ 73°F	ASTM D3029	in-lbs	>320
Thermal			
Coefficient of Thermal Expansion	ASTM D696	in/in/°F	3.75 x 10 ⁻⁵
Heat Deflection Temperature @ 264 psi	ASTM D648	°F	270
Flammability			
FAA Flammability @ .060" to .500"	FAR 25.853F1AI/ BSS 7230	-	Pass
UL94	5VA		Pass @ >0.236"

- ♦ These typical values are not intended for specification purposes. If minimum certifiable properties are required please contact your local SABIC Innovative Plastics' representative.
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Abrasion Resistance Comparison

Lexan MR AC sheet exhibits significantly less hazing than uncoated polycarbonate sheet as shown in the abrasion resistance chart.

	Test Method	% Haze		
		Uncoated Polycarbonate	Lexan MRAC Sheet	Glass
Taber Abrasion 100 Cycles CS 10F	ASTM D 1044 Z26.1	35.0	<3	0.5

* The Taber Abrader test measures the percent of change in haze that results from the grinding action of two abrasive impregnated wheels on the test samples. A constant load of 500 grams is maintained as the samples rotate on a turntable for a predetermined number of revolutions.

Chemical Resistance

Lexan MR AC sheet has sufficient resistance to most mineral oils, greases, aliphatic hydrocarbons and acids under low or moderate stress levels. Specific (application related) testing is always advised, especially in applications where the MR AC sheet will come into contact with aggressive chemicals.



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