

## Informationen zum Produkt Lexan<sup>®</sup> FR60, FR63, FR65, FR66

Sehr geehrte Damen und Herren,

in der Anlage erhalten Sie Informationen über das Produkt Lexan<sup>®</sup> FR60, FR63,  
FR65, FR66.

Für weitere Informationen und Anfragen stehen Ihnen

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Lexan<sup>®</sup> ist ein eingetragenes Markenzeichen der Firma General Electric Co. USA.



**Product Data Sheet**

# Lexan® FR60, FR63, FR65, FR66

## Description

Lexan FR60, FR63, FR65, FR66 films are a family of flame retardant clear polycarbonate films with UL94-V0 listing and a variety of different surface textures, which also benefit graphic applications.

Lexan FR6x films offer ease of thermoforming, hydroforming, embossing, die-cutting, folding, and bending and are very suitable for applications such as:

- printed circuit board insulation
- backlit aircraft in-flight panels and displays
- business equipment insulation
- computer rack partitions
- TV/monitor insulation

## Configuration

Product	Finish	Standard gauges (mm)
FR60	polished/polished	0.250
		0.375
		0.500
		0.635
		0.750
FR63	matt/polished	0.250
		0.375
		0.500
		0.635
FR65	velvet/matt	0.250
		0.375
		0.500
FR66	suede/matt	0.250
		0.375
		0.500





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Property	Test	Unit	Value+
<b>Physical</b>			
Specific Gravity	ISO 1183	g/cm <sup>3</sup>	1.32
Water Absorption, saturation, 23°C	ISO 62	%	0.28
<b>Optical</b>			
Haze	ASTM D1003	%	1.0
Light Transmission	ASTM D1003	%	85-88
<b>Mechanical</b>			
Tensile stress at yield	ISO R527	MPa	70
Tensile stress at break		MPa	60
Strain at break	ISO R527	%	25
Tensile Modulus	ISO R527	MPa	2200
Tear Strength Initiation	ASTM D1004	kN/m	298
Tear Strength Propagation	ASTM D1922	kN/m	6
<b>Thermal</b>			
Tensile Heat Distortion, 0.35 N/mm <sup>2</sup>	ASTM D1637	°C	150
DTUL, 1.82 N/mm <sup>2</sup>	ISO 75	°C	135
<b>Electrical</b>			
Dielectric Strength, 23°C, in oil, short term, 375 micron	IEC 243-1	kV/mm	59
Relative permittivity at 50 Hz	IEC 250	-	2.9
Relative permittivity at 1 kHz		-	2.8
Relative permittivity at 1 MHz		-	2.8
Dissipation Factor at 50 Hz	IEC 250	-	0.0026
Dissipation Factor at 1 kHz		-	0.0028
Dissipation Factor at 1 MHz		-	0.0117
Volume Resistivity	IEC 93	Ohm.m	10 <sup>14</sup>
<b>Flammability</b>			
Oxygen index	ISO 4589	-	33%
UL Flammability *	UL94		V0, 0.250 mm
Flash Point	-	°C	440
Self Ignition Temperature	-	°C	605
FMVSS 302	ASTM D618	-	all pass
NFPA 258-NBS	ASTM E662	-	
Smoke Chamber Test (0.25 mm)			D(4)=6 D(max)=36

+ Typical values only.

Variation within normal tolerances are possible for the various textures.

\* These ratings are not intended to reflect hazards presented by this or any other material under actual fire conditions.

## Product Data Sheet

# Lexan<sup>®</sup> FR60, FR63, FR65, FR66

### Agency Summary

Lexan FR60, FR63, FR65, FR66 film have been tested under a number of agency testing protocols including UL746A and UL 746B, IEC publication 85 and CSA 22.2 Class 905230.

The tables below summarize our UL and CSA listings for Lexan FR60, FR63, FR65, FR66.

### UL Listing Summary

File #E61257 (R)

Material	Colour	Thickness mm	UL-94 Flame Rating*	Relative Thermal Index			Performance Level Categories (PLC's)				
				Elect.	Mechanical		H W I	H A I	H V T R	D 4 9 5	C T I
					With Elong.	Without Elong. (tensile)					
Lexan FR6x	Cl	0.25 0.35	VO	130	125	130	1	0	-	-	3
	cl	0.375-0.74	VO	130	125	130	0	0	-	-	3
	cl	>=0.750	VO	130	125	130	0	0	-	-	3

### CSA Listing Summary

Material Type	Minimum Thickness mm	Temp. Class	Requirements in Standard								
			CSA C22.2 No.							IEC No.	
			1-M 1990	6-M 1984	66-1988	223-1987	234	950	65	950	
Lexan FR 60	0.250	130°C	A	A	A	A	A	A	A	A	
Lexan FR 63	0.250	130°C	A	A	A	A	A	A	A	A	
Lexan FR 65	0.250	130°C	A	A	A	A	A	A	A	A	
Lexan FR 66	0.125	130°C	A	A	A	A	A	A	A	A	

Note: 'A' indicates compliance with all of the requirements of the indicated agency standard.

\* This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

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