



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
		0.750
FR65	velvet/matt	0.250
		0.375
		0.500
FR66	suede/matt	0.250
		0.375
		0.500





Product Data Sheet

Lexan® FR60, FR63, FR65, FR66

Property	Test	Unit	Value+
Physical			
Specific Gravity	ISO 1183	g/cm ³	1.32
Water Absorption, saturation, 23°C	ISO 62	%	0.28
Optical			
Haze	ASTM D1003	%	1.0
Light Transmission	ASTM D1003	%	85-88
Mechanical			
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
Propagation	ASTM D1922	kN/m	6
Thermal			
Tensile Heat Distortion, 0.35 N/mm ²	ASTM D1637	°C	150
DTUL, 1.82 N/mm ²	ISO 75	°C	135
Electrical			
Dielectric Strength, 23°C, in oil, short term, 375 micron	IEC 243-1	kV/mm	59
Relative permittivity	IEC 250		
at 50 Hz	-		2.9
at 1 kHz	-		2.8
at 1 MHz	-		2.8
Dissipation Factor	IEC 250		
at 50 Hz	-		0.0026
at 1 kHz	-		0.0028
at 1 MHz	-		0.0117
Volume Resistivity	IEC 93	Ohm.m	10 ¹⁴
Flammability			
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[®] 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	A
Lexan FR 63	0.250	130°C	A	A	A	A	A	A	A	A	A
Lexan FR 65	0.250	130°C	A	A	A	A	A	A	A	A	A
Lexan FR 66	0.125	130°C	A	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.

AMERICAS

United States

GE Plastics
1 Plastics Avenue
Pittsfield, MA 01201
Tel. (1) (413) 448 5400

Brazil

GE Plastics South America
Av. Das Nacoes Unidas, 12995 - 20 Andar
Edificio Plaza Centenario
04578 - 000 Sao Paulo, Sp
Brazil
Tel. (55) 11 5505 2800
Fax (55) 11 5505 1757

Argentina

GE Plastics South America
Av. L.N. Alem 619 9 Piso
1001 Buenos Aires
Argentina
Tel. (54) 1 317 8753
Fax (54) 1 313 9560

EUROPE

European Headquarters

General Electric Plastics B.V. SPE
Plasticslaan 1
PO Box 117
NL - 4600 AC Bergen op Zoom
The Netherlands
Tel. (31) (164) 29 27 42
Fax (31) (164) 29 19 86

United Kingdom

GE Plastics Ltd
Old Hall Road
Sale
Cheshire M33 2HG
United Kingdom
Tel. (44) (161) 905 50 01
Fax (44) (161) 905 50 04

Italy

General Electric Plastics Italia S.p.A.
Viale Brianza 181
I - 20092 Cinisello Balsamo (Mi)
Italy
Tel. (39) 02 61 83 42 61
Fax (39) 02 61 83 42 09

Germany

General Electric Plastics GmbH
Eisenstraße 5
D - 65428 Rüsselsheim
Germany
Tel. (49) (61 42) 601 101
Fax (49) (61 42) 601 259

Spain

GET sl (Gestión y Especificaciones Técnicas)
Agente Oficial España y Portugal
C/Girona, 67, 3º-2a
08009 Barcelona
Spain
Tel. (34) (93) 488 03 18
Fax (34) (93) 487 32 36

France

General Electric Plastics France S.à.R.L.
Z.I. de St. Guénault B.P. 67
F - 91002 Evry-Cedex
France
Tel. (33) (1) 60 79 69 00
Fax (33) (1) 60 79 69 21

PACIFIC

Australia

GE Plastics (Australia) Pty. Ltd.
175 Hammond Road
Dandenong, Victoria 3175
Australia
Tel. (61) 39 794 4204
Fax (61) 39 794 8563

Beijing

GE Plastics
Citic Building, 3rd Floor
No. 19 Jian Guo Men Wai Avenue
Beijing 100004
China
Tel. (86) 10 6500 6538
Fax (86) 10 6500 6476

Guangzhou

GE Plastics Guangzhou
Room 1212, Yi An Plaza
No. 38, Jian She 6 Road
Guangzhou, 510060
China
Tel. (86) 20 8387 2818
Fax (86) 20 3128 or 3118

Hong Kong

GE Plastics Hong Kong Ltd.
Rm 1008, Tower 1, The Gateway
25 Canton Road
Kowloon
Hong Kong
Tel. (852) 26 29 0880
Fax (852) 26 29 0801

Indonesia

GE Plastics Indonesia
Menara Batavia 5th Floor,
JI KH Mas Manyur kav.126
Jakarta 10220
Indonesia
Tel. (62) 21 574 4980
Fax (62) 21 574 7101

Japan

SP Pacific Ltd.
Nihonbashi Hamacho Park Bldg. 5th Floor
2-35-4 Nihonbashi Hamacho
Chuo-ku, Tokyo 103
Japan
Tel. (81) 3 569 6301
Fax (81) 3 569 6306

Korea

GE Plastics Korea Co. Ltd.
#231-8 Nonhyun-Dong
Kangnam-Ku
Seoul 135-010
Korea
Tel. (822) 510 6273
Tel. (882) 510 6291
Fax (822) 510 6299

Shanghai

GE Plastics Shanghai
10th Floor, Shartex Center
88 Zunyi Road(s)
Shanghai 200335 China
Tel. (86) 21 6270 6789
Fax (86) 21 6270 9973
Fax (86) 21 6270 9974
Fax (86) 21 6270 9975

Singapore

GE Singapore
GE Tower, 240 Panjang Pagar Road
#500 Singapore 088540
Tel. (65) 326 3900
Fax (65) 326 3946

Taiwan

GE Plastics
13th Floor, #168
Tun Hua North Road
Taipei
Taiwan
Tel. (886) 2 514 9842
Fax (886) 2 514 9921

Thailand

GE Plastics Thailand
15th Floor, Thaniya Plaza Buiding
52 Silom Road, Bangkok 10500
Thailand
Tel. (662) 231 2918
Fax (662) 231 2322



GE Structured Products

www.GEStructuredProducts.com

All information, recommendation or advice contained in this document or given by General Electric Company, USA, or any of its subsidiaries, affiliates or authorised representatives, whether written or oral, is given in good faith, to the best of its knowledge and based on current procedures in effect. The products of General Electric Company or, if applicable, of its subsidiaries or affiliates are sold subject to Conditions of Sale, printed on the back of order acknowledgements, invoice or available upon request. Nothing in this or any other document shall alter, vary, supersede or operate to waive any of the Conditions of Sale. Each user of the products shall convince himself, through all available sources (including finished product testing in its appropriate environment) of the suitability of the products supplied for its own particular purpose. Because actual use of the products by the user is beyond the control of General Electric Company, its subsidiaries and affiliates, such use is within the exclusive responsibility of the user. General Electric Company, its subsidiaries and affiliates cannot be held responsible for any loss incurred through incorrect or faulty use of the products. Information, recommendation and/or advice are neither made to infringe on any patents, nor to grant a license under any patent or intellectual property right of General Electric Company or any of its subsidiaries or affiliated companies, nor to grant the right to file for any patent protection.

Lexan® is a Trademark of General Electric Co., USA.