LEXAN™ FRA 25C SHEET

PRODUCT DATASHEET

DESCRIPTION

LEXAN™ FRA 25C sheet is a .250" monolithic, high impact resistant LEXAN polycarbonate sheet with a proprietary abrasion resistant surface. LEXAN FRA 25C sheet provides 70 times the impact resistance of laminated glass with no spalling. LEXAN FRA 25C sheet has been specifically developed for rail glazing applications. Dual glazed LEXAN FRA 25C sheet with a .250" air gap meets the UMTA glazing guidelines and the FRA (Federal Railway Administration) Type I & II ballistic and impact requirements.

TYPICAL PROPERTY VALUES◆

PROPERTY	TEST METHOD	UNITS	VALUE
Physical			
Specific Gravity	ASTM D792	-	1.20
Light Transmission (Average), 1/8" Thick	ASTM D1003	%	83
Chemical Resistance	ANSI Z26.1	-	Passes#
Mechanical			
Tensile Strength, Ultimate	ASTM D638	psi	9,500
Flexural Strength	ASTM D790	psi	13,500
Flexural Endurance @ 1,800 Cycles/Min, 73°F, 50% RH	ASTM D671	psi	1,000
Compressive Strength	ASTM D695	psi	12,500
Modulus of Elasticity	ASTM D638	psi	340,000
Drop Ball Impact Strength‡	SABIC Test	ft-lbs	
@ 73°F			>200
@ 32°F			>200
@ 0°F			>200
Thermal			
Coefficient of Thermal Expansion	ASTM D696	in/in/°F	3.75×10^{-5}
Heat Deflection Temperature @ 264 psi	ASTM D648	°F	260
Flammability			
Horizontal Burn (Flame Spread)	ASTM D635	in	
AEB			<1
Ignition Temperature	ASTM D1929	°F	
Flash			873
Self			1,076
UMTA Guidelines (Glazing)	-	-	Pass
Federal Railway Administration			
(FRA) Type I & II	-	-	Meets all requirements

◆ These typical values are not intended for specification purposes. If minimum certifiable properties are required please contact your Local SABIC Innovative Plastics' representative.
‡ 5-lb steel ball dropped from a height of 40 feet
# Gasoline and kerosene - no tackiness, crazing or loss of transparency for a minimum of 48 hours.
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UL File Number: E121562

ABRASION RESISTANCE COMPARISON‡

	Test Method	Uncoated Polycarbonate	% Haze LEXAN FRA 25C Sheet	Glass
Taber Abrasion 100 Cycles CS 10F	ASTM D 1044 Z26.1	35.0	0.8-2.0	0.5
Falling Silica Carbide, 1600 grams	Z26.1	30.0	5-8	15-20

‡ 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.

CONTACT US:

Middle East and Africa
SABIC Global Headquarters
PO Box 5101
Riyadh 11422
Saudi Arabia
T +966 (0) 1 225 8000
F +966 (0) 1 225 9000
E info@sabic.com

Americas
Specialty Film & Sheet
1 Plastics Avenue
Pittsfield, MA 01201
USA
Toll-free 1 800 323 3783
T 1 413 448 6655
F (888) 443 2033
E Spinside.sales@sabic-ip.com

Europe
Specialty Film & Sheet
Plasticslaan 1
4612 PX
Bergen op Zoom
The Netherlands
T +31 (0)164 293678
F +31 (0)164 293272
E sfs.info@sabic-ip.com

Asia Pacific
Specialty Film & Sheet
2550 Xiupu Road
Pudong
201319 Shanghai
China
T +86 21 2037 8188
F +86 21 2037 8288
E sfs.info@sabic-ip.com

Email
sfs.info@sabic-ip.com

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