



GE Structured Products

LEXAN® 8B35, 8B36, 8A13, 8A35, 8A37 FILM

Product Data Sheet

DESCRIPTION

LEXAN® polycarbonate films are available in diverse combinations of textures for customized design flexibility. These textures also offer mar resistance, and can be used over light-emitting devices (LEDs). Low gloss levels are also available to reduce glare in automobile interiors and office environments. Recent technology improvements now in effect reduce texture variation by 50%. Additional enhancements allow improved gauge control (see reverse side for details).

TYPICAL PROPERTY VALUES*

Property	Test Method	Units	Value
PHYSICAL			
Specific Gravity	ASTM D792	--	1.20
Area Factor	Calculation	ft ² /lb/mil	160
Refractive Index @ 77°F	ASTM D542A	--	1.586
Light Transmission (Average)	ASTM D1003	%	88-91
Yellowness Index	ASTM D1925	--	<1.0
Water Absorption, Equilibrium, 24 Hrs	ASTM D570	%	0.35
MECHANICAL			
Tensile Strength @ Yield	ASTM D882	psi	8,500
Ultimate			9,000
Tensile Modulus	ASTM D882	psi	300,000
Elongation	ASTM D882	%	100-150
Gardner Impact Strength @ 30 mils	Gardner	in-lbs	120
Tear Strength			
Initiation	ASTM D1004	lb/mil	1.4-1.8
Propagation	ASTM D1922	g/mil	30-55
Burst Strength-Mullen @ 1 mil	ASTM D774	psig	40-45
Fold Endurance @ 10 mils	MIT	double folds	200
THERMAL			
Coefficient of Thermal Expansion	ASTM D696	in/in/°F	3.75 x 10 ⁻⁵
Coefficient of Thermal Conductivity	ASTM C177	Btu/hr/ft ² /°F/in	1.35
Specific Heat @ 40°F	ASTM C351	Btu/lb/°F	0.30
Strain Relief @ 275°F	ASTM D1204	%	<0.2
Tensile Heat Distortion @ 50 psi	ASTM D1637	°F	302
Heat Deflection Temperature @ 264 psi	ASTM D648	°F	275
Brittle Temperature	ASTM D746	°F	-211
Vicat Softening Temperature	ASTM D1525	°F	305-315
ELECTRICAL			
Dielectric Strength @ 72°F in Oil, Short Time, 10 mils	ASTM D149	V/mil	1,700
Dielectric Constant @ 60 Hz	ASTM D150	--	2.99
@ 1,000,000 Hz			2.93
Dissipation Factor @ 60 Hz	ASTM D150	--	0.001
@ 1,000,000 Hz			0.011
Volume Resistivity	ASTM D257	ohm-cm	10 ¹⁶
Surface Resistivity		ohm-sq	10 ¹⁵
Arc Resistance, Tungsten Electrodes	ASTM D495	sec	120

*These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local GE Plastics Structured Products representative or the GE Plastics Structured Products Quality Services Department.

Lexan

LEXAN® 8B35, 8B36, 8A13, 8A35, 8A37 FILM

MANUFACTURING SPECIFICATIONS

The manufacturing guidelines presented here outline the quality standards to which GE Plastics produces its films. More stringent standards can be agreed to on a case-by-case basis, depending upon the requirements of a particular application or process. Such changes may result in a change in sales price or conditions.

**For more information
call: (800) 451-3147
or (413) 448-5400.**

DISCLAIMER: THE MATERIALS AND PRODUCTS OF THE BUSINESSES MAKING UP THE GE PLASTICS UNIT OF GENERAL ELECTRIC COMPANY, ITS SUBSIDIARIES AND AFFILIATES, ("GEP") ARE SOLD SUBJECT TO GEP'S STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT, PRINTED ON THE BACK OF ORDER ACKNOWLEDGMENTS AND INVOICES, AND AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, GEP MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING GEP MATERIALS, PRODUCTS, RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN GEP'S STANDARD CONDITIONS OF SALE, GEP AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS OR PRODUCTS DESCRIBED HEREIN. Each user bears full responsibility for making its own determination as to the suitability of GEP's materials, products, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating GEP materials or products will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of GEP's Standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by GEP. No statement contained herein concerning a possible or suggested use of any material, product or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of General Electric Company or any of its subsidiaries or affiliates covering such use or design, or as a recommendation for the use of such material, product or design in the infringement of any patent or other intellectual property right.

TEXTURES

Velvet/Matte	8B35-112	3-20 mils
Suede/Matte	8B36-112	10-20 mils
Matte/Polished	8A13-112	7-25 mils
Velvet/Polished	8A35-112	5-25 mils
Brushed/Polished	8A37-112	10-20 mils

GARDNER GLOSS LEVELS AFTER SCREENING FLAT BLACK*						
		ANGLE	VELVET	MATTE	SUEDE	BRUSHED
8B35	Minimum	60°	3.0	5.0		
	Maximum		4.5	15.0		
8B36	Minimum	60°		3.0	0.0	
	Maximum			12.0	2.0	
8A13	Minimum	85°		4.0		
	Maximum			10.0		
8A35	Minimum	60°	8.0			
	Maximum		14.0			
8A37	Minimum	60°				24
	Maximum					48

PROPERTY	UNITS	TYPICAL VALUE
Scratches	Inches	<1/4 Hairline, Buff Type
Web Edge** Curl Machine Direction (MD) Transverse Direction (TD)		<.10
	Inches	<0.5
Defect Size >.025 >.015 >.005		1/100 Sq. Ft.
		1/Sq. Ft.
		20/Sq. Ft.
	Inches	
Gauge Variation .015"-.030" .008"-.014" .003"-.007"		Nominal Gauge: ± 3
		Nominal Gauge: ± 5
		Nominal Gauge: ± 10
	%	

* Measured with the grain.

**Films from .015" to .030" in gauge may contain curl due to roll set. This property can be minimized by reverse winding the rolls approximately 48 hours prior to sheeting.



GE Structured Products

General Electric Company
One Plastics Avenue
Pittsfield, MA 01201