

# GE

## Plastics

### Specialty Film & Sheet

# Gepax\* 8200 Sheet

## Product Datasheet

### Description

The Gepax\* 8200 sheet is a flame retardant opaque polycarbonate sheet. Specifically developed for outside applications where high color is required. High impact performance, excellent formability, UL 94/V0 flammability rated sheet (Gepax 8206 sheet) and UV-resistance.

### Typical Property Values ♦

Property	Test Method	Unit	Value
<b>Physical</b>			
Density	ISO 1183	g/cm <sup>3</sup>	1.20
Water absorption, equilibrium	ISO 62	%	0.35
Mould shrinkage	ISO527	%	0.6 - 0.8
<b>Mechanical</b>			
Tensile strength,	ISO 527	MPa	55
Tensile modulus	ISO 527	MPa	2000
Tensile elongation, yield	ISO 527	%	6
break		%	100
Flexural strength, yield	ISO 178	MPa	100
Flexural modulus	ISO 178	MPa	2200
Izod Notched Impact	ISO 180/1A		
20 °C		kJ/m <sup>2</sup>	65
-20 °C		kJ/m <sup>2</sup>	10
-Gardner Impact	GE Method		
20°C		J	>40
-40°C		J	>40
<b>Thermal</b>			
Vicat Softening Temp, Rate B/ 120	ISO 306	°C	145
HDT, 0.45 MPa	ISO 75/Be	°C	138
Thermal Conductivity	ASTM C 177	W/m°C	0.20
Ball Pressure Test 75 °C	IEC 335-1		Pass
Ball Pressure Test 125 °C	IEC 335-1		Pass
Thermal Expansion Coefficient	ASTM D696	1/ °C	7x10 <sup>-5</sup>
<b>Electrical</b>			
Comparative Tracking Index	IEC 112/3	Volt	225
Comparative Tracking Index, M	IEC 112/3	Volt	125
Volume Resistivity	IEC 93	Ohm.cm	>10 <sup>15</sup>
Surface Resistivity	IEC 93	Ohm	>10 <sup>15</sup>
<b>Flammability</b>			
Oxygen Index	ISO 4589	%	36
Glow Wire, 960 °C	IEC 695-2-1		Pass (3.0mm)

- ♦ These property values have been derived from Lexan\* resin data for the material used to produce this sheet product.  
 \* Lexan and Gepax are trademarks of General Electric Company



# Gepax\* 8200 Sheet

## Product Datasheet

### Processing

Gepax\* 8200 sheet is an excellent candidate for thermoforming. It offers high, deep draw ratios, equal wall thickness distribution, and it can be formed into complex shapes using standard thermoforming equipment. Sandwich type heating systems give the best results. Gepax 8200 sheet has a forming temperature range of 185 - 205°C. When forming, a draft angle of at least 3° should be allowed, and post mold shrinkage of 0.6 - 0.8% taken into account.

### Chemical Resistance

Gepax 8200 sheet has sufficient resistance to most mineral oils, greases, aliphatic hydrocarbons and acids under low or moderate stress levels. In applications where the Gepax 8200 sheet will come into contact with aggressive chemicals, specific (application related) testing is always advised. Effective painting systems can improve chemical resistance.

### Pre-drying

It is important to ensure that Gepax 8200 sheets are free of moisture prior to thermoforming. A hot air circulating oven set at 120°C is recommended. Drying times vary from 3-24 hours, depending on sheet thickness.

### Assembling

Parts made from Gepax 8200 sheet can be assembled with plastics, metals, rubber and other materials using many types of adhesive bonding, welding and mechanical fastening techniques. Further information and advice is available on request.

### Fire Test Performance

Gepax has good fire performance against many national fire codes dependent on thickness and color; please check with the local sales office for details.

### Product Availability

**Product code:** Gepax 8200 sheet  
**Standard size:** 1250 x 2050mm 2050 x 3000mm  
**Gauges:** 1.2 - 8.0mm  
**Textures:** Polished/Suede Polished/Haircell  
**Standard Colors:** Black 78927, Off White 78943, Light Grey 78944.

Other colors/sizes are available by special request.

#### Americas:

GE  
Plastics  
Specialty Film & Sheet  
One Plastics Avenue  
Pittsfield, MA 01201  
USA  
Tel. (1) (413) 448 7110  
Fax. (1) (413) 448 7506

#### Europe:

GE  
Plastics  
Specialty Film & Sheet  
Plasticslaan 1  
4612 PX Bergen op Zoom  
The Netherlands  
Tel. (31) (164) 292742  
Fax. (31) (164) 293272

#### Pacific:

GE  
Plastics  
Specialty Film & Sheet  
1468 Nanjin Road (W)  
26th Floor, United Plaza  
200040 Shanghai, China  
Tel. (86) 21 3222 4500  
Fax. (86) 21 6289 8998

#### For more information call:

(800) 451-3147

Visit us online at:  
[www.geplastics.com](http://www.geplastics.com)

©2005 General Electric Company  
All Rights Reserved

DISCLAIMER: THE MATERIALS, PRODUCTS AND SERVICES OF THE BUSINESSES MAKING UP THE PLASTICS BUSINESS UNIT OF GENERAL ELECTRIC COMPANY, ITS SUBSIDIARIES AND AFFILIATES, ARE SOLD SUBJECT TO ITS 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, GE'S PLASTICS BUSINESS 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 ITS PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN GE'S 'PLASTICS BUSINESS' STANDARD CONDITIONS OF SALE, GE'S PLASTICS BUSINESS AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS OR SERVICES DESCRIBED HEREIN. Each user bears full responsibility for making its own determination as to the suitability of GE's Plastics business' products, materials, services, 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 GE's Plastics business' products, materials, or services 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 GE's Plastics business' Standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by GE's Plastics business. No statement contained herein concerning a possible or suggested use of any material, product, service 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, service or design in the infringement of any patent or other intellectual property right.

\* Lexan and Gepax are trademarks of General Electric Company

