

Description

Gepax 7000 sheet is an opaque polycarbonate sheet, specifically developed for a wide range of industrial applications previously dominated by metals and upgraded commodity plastics. Gepax 7000 sheet combines extremely high impact performance with good stiffness over a wide temperature range (-30 to 110 °C). Gepax 7000 sheet provides high impact performance, very good heat resistance and excellent formability.

Typical Property Values ♦

Property	Test Method	Unit	Value
Physical			
Density	ISO 527	g/cm ³	1.20
Water absorption, equilibrium	ASTM-D370	%	0.35
Mechanical			
Tensile strength, yield	ISO 527	MPa	55
Tensile modulus	ISO 527	MPa	2300
Tensile elongation, @ yield	ISO 527	%	6-7
@ break		%	100
Flexural strength, yield	ISO 178	MPa	100
Flexural modulus	ISO 178	MPa	2200
Izod Notched Impact 20 °C	ISO 180/1A	J/m	550
-20 °C		J/m	500
Gardner Impact 20°C	SABIC Method	J	>40
-20°C		J	>40
-40°C		J	>40
Thermal			
Vicat Softening Temp, Rate B/ 120	ISO 306	°C	135
DTUL, 1.82 MPa	ISO 75/Ae	°C	125
Ball Pressure Test 75 °C	IEC 335-1	Pass	Pass
Ball Pressure Test 125 °C	IEC 335-1	Pass	Pass
Mold shrinkage	ISO 527	%	0.6-0.8
Thermal Expansion	ASTM D696	°C	7.2x10 ⁻⁵
Electrical			
Comparative Tracking Index	IEC 112/3	V	225.0
Comparative Tracking Index, M	IEC 112/3	V	125.0
Volume Resistivity	IEC 93	Ohm.m	10 ¹⁴
Surface Resistivity	IEC 93	Ohm	10 ¹⁵

♦ These property values have been derived from Lexan*resin data for the material used to produce this sheet product.

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Processing

Gepax* 7000 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 7000 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 7000 sheet has sufficient resistance to most mineral oils, greases, aliphatic hydrocarbons and acids under low or moderate stress levels. In applications where the Gepax 7000 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 7000 sheet is kept free of moisture prior to thermoforming. A hot air circulating oven set at 120°C is recommended. Pre-drying times vary from 4-24 hours, depending on sheet thickness.



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Assembling

Parts made from Gepax 7000 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.

Painting

For either functional or decorative reasons it may be necessary to apply a finish to sheets or vacuum formed parts. Gepax 7000 sheet is an excellent candidate for use with a wide variety of modern decoration techniques. A list of approved paint systems and suppliers is available upon request.

Fire test performance

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

Product Availability

Product code:	Gepax 7000 sheet
Standard size:	1250 x 2050mm, 2050 x 3000mm
Gauges:	1.0 - 8.0mm
Textures:	Polished/Polished Polished/Matt Polished/Suede Polished/Haircell, Polished/Pebbled
Standard Colors:	Black 78927, Light Gray 78944, Off White 78943,
Non Standard Colors:	Red 68278, Dark Blue 28291, Light Blue 28293, Gray 78964, Brown 58961, Yellow 48225, Green 38241, Dark Gray 78959, Beige 58921.

Other colors/sizes are available by special request

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