

Exolon® GP ECO

Solid polycarbonate sheet with reclaimed content



Your benefits:

- guaranteed with a fixed percentage of reclaimed content
- extreme impact strength
- resistance to a wide range of temperatures
- good fire rating

Solid **Exolon® GP ECO** sheets are clear, polished polycarbonate sheets which contain a fixed percentage of own reclaimed content. They offer extreme impact strength that exceeds the physical properties of other products of their class. **Exolon®** sheets resist temperatures of -100 to +120 °C, exhibit high optical clarity and have a good fire rating.

Exolon® GP ECO clear 099 is a clear transparent sheet with high light transmission. It contains at least 40% reclaimed material out of our own production.

Applications:

Typical applications for **Exolon® GP ECO** sheets include machine guards, lighting fixtures, signs, wall and door partitions. The sheets offer protection against involuntary breakage and wilfull destruction. **Exolon® GP ECO** sheets can be thermoformed, cold-curved and machined with ease.

Our commitment: Exolon® GP ECO has the same high quality as our standard sheets regarding optical and mechanical performance. By using selected reclaimed material of excellent quality we are able to maintain the typical properties of the material.

	Test Conditions	Typical values ⁽¹⁾	Unit	Standard
PHYSICAL				
Density		1200	kg/m ³	ISO 1183-1
Water absorption saturation	water at 23 °C	0.30	%	ISO 62
Water absorption equilibrium	23 °C, 50% relative humidity	0.12	%	ISO 62
Refractive index	Procedure A	1.587	–	ISO 489
MECHANICAL				
Tensile modulus	1 mm/min	2350	MPa	ISO 527-1,-2
Yield stress	50 mm/min	> 60	MPa	ISO 527-1,-2
Yield strain	50 mm/min	6	%	ISO 527-1,-2
Strain at break	50 mm/min	> 130	%	ISO 527-1,-2
Flexural modulus	2 mm/min	2350	MPa	ISO 178
Flexural strength	2 mm/min	90	MPa	ISO 178
Charpy impact strength	23 °C, unnotched	non-break	kJ/m ²	ISO 179-1eU
Charpy impact strength	23 °C, 3 mm, notched	80P	kJ/m ²	ISO 179-1eA
Izod impact strength	23 °C, 3.2 mm, notched	70P	kJ/m ²	ISO 180-A
THERMAL				
Vicat softening temperature	50 N, 50°C/h	148	°C	ISO 306
Thermal conductivity	23°C	0.20	W/mK	ISO 8302
Coefficient of linear thermal expansion	23 to 55°C	0.65	10 ⁻⁴ /K	ISO 11359-1, -2
Temperature of deflection under load	1.80 Mpa	128	°C	ISO 75-1, -2
Temperature of deflection under load	0.45 Mpa	140	°C	ISO 75-1, -2
ELECTRICAL				
Electrical strength	1 mm	34	kV/mm	IEC 60243-1
Volume resistivity		1E14	Ohm.m	IEC 60093
Surface resistivity		1E16	Ohm	IEC 60093
Relative permittivity	100 Hz	3.1	–	IEC 60250
Relative permittivity	1 MHz	3.0	–	IEC 60250
Dissipation factor	100 Hz	5	10 ⁻⁴	IEC 60250
Dissipation factor	1 MHz	95	10 ⁻⁴	IEC 60250

⁽¹⁾ These values are measured on injection molded samples, and are not intended for specification purposes.

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Exolon Group ECORANGE represents a line of products which attribute to improved sustainability by having a lower ecological footprint.

Light Transmission: Test Method according to DIN 5036.

The stated thicknesses are not all available as standard. Please ask us for more information. The stated values are typical values only.

Light transmission %	1.5	2	3	4	5	6
Exolon® GP ECO clear 099	89	89	88	87	87	86

Available sizes: Exolon® GP ECO sheets are available in thicknesses of 1.5 – 6 mm and in the following sizes:

Sheet Thickness:

1.5 – 2 mm	max width 1250 mm
3 – 6 mm	max width 2050 mm

Our standard sizes are the dimensions:

2,050 x 1,250 mm and 3,050 x 2,050 mm

Please contact us if you need other dimensions.

Permanent Service Temperature: The permanent service temperature without load is approx. 120 °C.

Fire Rating (*):

Country	Standard	Rating	Thickness	Color
Europe	EN 13501-1	B s1, d0	1.5 – 3 mm	GP ECO clear 099

(* Fire certificates could be limited in time and scope, always check if the mentioned certificate is valid for the purchased Polycarbonate sheet type at the date of delivery. Polycarbonate sheets may change their fire behavior due to ageing and weathering. The indicated fire rating was tested on new / unweathered Product in accordance with the indicated fire classification standards.



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