

Product data sheet, March 2023

Exolon® GP rECO

Solid polycarbonate sheet with pre-consumer regrind



Your benefits:

- contains almost 100% of pre-consumer recycled content
- extreme impact strength
- good fire rating

Solid **Exolon® GP rECO** sheets are clear, polished polycarbonate sheets which contain up to 100% of pre-consumer recycled content. They offer extreme impact strength that exceeds the physical properties of other products of their class. **Exolon® GP rECO** sheets resist temperatures of -100 to +120 °C and have a good fire rating.

Exolon® GP rECO is a clear transparent sheet available in 2 versions, one with 50% and one with almost 100% pre-consumer regrind.

Applications:

Exolon® GP rECO sheets can be used in most of the applications of virgin polycarbonate sheets, depending on the customers specification.

The sheets offer protection against involuntary breakage and wilfull destruction. The sheets can be thermoformed, cold-curved and machined with ease.

	Test Conditions	Typical Values(1)	Unit	Test Method
PHYSICAL Density Water absorption saturation Water absorption equilibrium	water at 23°C 23°C, 50 % relative humidity	1200 0.3 0.12	kg/m³ % %	ISO 1183-1 ISO 62 ISO 62
MECHANICAL Tensile modulus Yield stress Yield strain Strain at break Charpy impact strength	1 mm/min	> 2200	MPa	ISO 527-1,-2
	50 mm/min	> 55	MPa	ISO 527-1,-2
	50 mm/min	5	%	ISO 527-1,-2
	50 mm/min	> 90	%	ISO 527-1,-2
	23°C, unnotched	no break	kJ/m²	ISO 179-1eU
THERMAL Vicat softening temperature Thermal conductivity Coefficient of linear thermal expansion Temperature of deflection under load	50 N, 50°C/h	148	°C	ISO 306
	23°C	0.2	W/(m.K)	ISO 8302
	23 bis 55°C	0.65	10⁴/K	ISO 11359-1,-2
	1.80 Mpa	128	°C	ISO 75-1,-2

⁽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 %	3	4	5	6	8
Exolon® GP rECO clear 099	88	87	87	86	85

Availability:

This material is available in 2 versions:

Exolon® GP clear 099 rECO5: contains 50% of pre-consumer recycled content

Exolon® GP clear 099 rECO10: contains almost 100% of pre-consumer recycled content(1)

Exolon® GP rECO sheets are available on request in clear 099 in thicknesses of 3 - 8 mm and in the following sizes; other sizes and sheet thicknesses on request.

Sizes (standard):

2,050 x 1.250 mm 3.050 x 2.050 mm

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

Sustainability

The Exolon Group is committed to sustainability and protecting the environment, and actively supports and promotes developments which reduce the environmental impact of its products. **Exolon® GP rECO** is a circular product: it contains 50 to almost 100% of pre-consumer waste. This is waste which is generated after the sheets leave our factory but before they are used in their final application, e.g. during the fabrication stage of the final part.

The sheets may have slight variations in color and have a higher number of small inclusions, due to the recycled content. The use of recycled content has a positive impact on the ecological footprint by reducing waste and conserving resources.



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⁽¹⁾ due to technical restrictions the recycled content will be more than 95% but below 100%.