

Product data sheet, March 2023

## Exolon® UV rECO

# Solid polycarbonate sheet with pre-consumer regrind



### Your benefits:

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

Solid **Exolon® UV rECO** sheets are clear, polished polycarbonate sheets with UV protection on both sides which contain up to 100% of pre-consumer recycled content. They are the perfect choice for a long service life owing to their good weathering resistance. These attributes are backed up by our 10-year guarantee on weathering resistance and a 10-year guarantee on retaining their mechanical properties.

**Exolon® UV rECO clear 2099** is a clear transparent sheet available in 2 versions, one with 50% and one with almost 100% pre-consumer regrind.

### **Applications:**

**Exolon® UV rECO** is ideal for outdoor applications:

- covered walkways and bus shelters
- barrel vaults and skylights (also thermoformed)

	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 50 mm/min 50 mm/min 50 mm/min 23°C, unnotched	> 2200 > 55 5 5 > 90 no break	MPa MPa % % kJ/m²	ISO 527-1,-2 ISO 527-1,-2 ISO 527-1,-2 ISO 527-1,-2 ISO 179-1eU	
THERMAL Vicat softening temperature Thermal conductivity Coefficient of linear thermal expansion Temperature of deflection under load	50 N, 50°C/h 23°C 23 bis 55°C 1.80 Mpa	148 0.2 0.65 128	°C W/(m.K) 10 <sup>4</sup> /K °C	ISO 306 ISO 8302 ISO 11359-1,-2 ISO 75-1,-2	

<sup>(1)</sup> 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® UV rECO clear 099	88	87	87	86	85

### Availability:

This material is available in 2 versions:

Exolon® UV clear 2099 rECO5: contains 50% of pre-consumer recycled content.

Exolon® UV clear 2099 rECO10: contains almost 100% of pre-consumer recycled content(1).

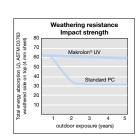
**Exolon® UV rECO** sheets are available on request in clear 2099 in thicknesses of 3 - 8 mm and in the following sizes; other sizes and sheet thicknesses on request

#### Sizes (standard):

3,050 x 2,050 mm

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

**Weathering Resistance: Exolon® UV rECO** sheets show excellent weathering resistance, which guarantees their impact strength even after many years. Since their introduction in 1989, the sheets have been examined in an intensive test program, including a real-time outdoor exposure test in a southern European climate (Bandol). The sheets are provided with a 10-year warranty on unbreakability and on optical properties.



### 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® UV 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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<sup>(1)</sup> due to technical restrictions the recycled content will be more than 95% but below 100%.