

# Vivak® GP Eco

## Solid copolyester sheet with regrind



### Your benefits:

- guaranteed with a fixed percentage of regrind
- excellent thermoformability
- suitable for food-contact applications
- good fire rating

Solid **Vivak® GP Eco** sheets are made of thermoplastic copolyester and contain a fixed percentage of own regrind. They offer high impact strength, a good fire rating and are fully recyclable.

**Vivak® GP Eco** is a clear transparent sheet with extremely high light transmission and high gloss. It contains at least 40% of own regrind. **Vivak® GP Eco** can be used for food-contact applications.

### Applications:

Ideal fields of application for **Vivak® GP Eco** are: P.O.S. (displays, price tag holders, shelf partitions), direction signs, promotional symbols, food containers and trays, flat and formed machine coverings, partitions.

**Vivak® GP Eco** can be rapidly thermoformed at low energy consumption, short production cycles, extreme degrees of stretching and accurate mold surface reproduction, without predrying. The sheets are easy to screen print, 3D-print and machine.

	Test Conditions	Typical values	Unit	Standard
<b>PHYSICAL</b>				
Density		1.27	g/cm <sup>3</sup>	ISO 1183-1
Moisture absorption	after storage in standard climate 23 °C/50 %r.F.	0.2	%	ISO 62-4
	after storage in water at 23 °C until saturation	0.6	%	ISO 62-1
Refractive index	20 °C	1.567	–	ISO 489
<b>MECHANICAL</b>				
Tensile stress at yield		> 45	MPa	ISO 527-2/1B/50
Elongation at yield		4	%	ISO 527-2/1B/50
Tensile strength		> 45	MPa	ISO 527-2/1B/50
Elongation at break		> 35	%	ISO 527-2/1B/50
Elastic modulus		2,020	MPa	ISO 527-2/1B/1
Limiting flexural stress		ca. 80	MPa	ISO 178
Impact strength	Charpy, unnotched	no break	kJ/m <sup>2</sup>	ISO 179/1fU
	Charpy, notched	ca. 7	kJ/m <sup>2</sup>	ISO 179/1eA
	Izod notched	ca. 6	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL</b>				
Vicat softening temperature	Method B50	80	°C	ISO 306
Thermal conductivity		0.2	W/m K	DIN 52612
Coeff. of linear thermal expansion		0.05	mm/m K	DIN 53752-A
Heat deflection temperature under load	Method A: 1.80 MPa	63	°C	ISO 75-2
	Method B: 0.45 MPa	70	°C	ISO 75-2
<b>ELECTRICAL</b>				
Dielectric strength		16.1	kV/mm	IEC 60243-1
Volume resistivity		10 <sup>15</sup>	Ohm·cm	IEC 60093
Surface resistivity		10 <sup>15</sup>	Ohm	IEC 60093
Dielectric constant	at 10 <sup>3</sup> Hz	2.6		IEC 60250
	at 10 <sup>6</sup> Hz	2.4		IEC 60250
Dissipation factor	at 10 <sup>3</sup> Hz	0.005		IEC 60250
	at 10 <sup>6</sup> Hz	0.02		IEC 60250

The mechanical properties were measured on sheets of 4 mm thickness.

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Ideas, innovative, intelligent, interesting... Exolon Group i-line represents the next generation of quality products. This seal guarantees innovative and intelligent first-class solutions at all times for a multitude of requirements.

### 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 in %	1.5	2	2.5	3
Vivak® GP Eco clear 099	90	89	89	88

### Available sizes:

**Vivak® GP Eco clear 099** is available in thicknesses of 1.5 - 3 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.

### Thermoforming:

Due to their excellent flow properties and mold surface reproduction, **Vivak® GP Eco** sheets can be thermoformed at low temperatures without predrying. Because of its low specific heat capacity, **Vivak® GP Eco** requires little energy for thermoforming.

### Permanent Service Temperature:

The maximum permanent service temperature without load is approx. 65 °C.

### Food compatibility

**Vivak® GP Eco** can be used for food-contact

### Fire Rating (\*):

Country	Standard	Rating	Thickness	Color
Europe	EN13501-1	B-s1, d0	2 - 3 mm	clear 099

(\*) fire certificates are limited in time, always check if the mentioned certificate is still valid.

Exolon Group also produces multiwall sheets in polycarbonate (Exolon® multi UV), and solid sheets in polycarbonate (Exolon® GP) and in polyester (Vivak® and Axpert®). For more information, take a look at [www.exolongroup.com](http://www.exolongroup.com).



Exolon Group NV  
Wakkensesteenweg 47  
8700 Tielt  
Belgium

[www.exolongroup.com](http://www.exolongroup.com)  
[sales@exolongroup.com](mailto:sales@exolongroup.com)

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