Product data sheet, February 2022

Vivak®

Solid copolyester sheet

S Line
Standard

Your benefits:

- excellent thermoformability
- good impact strength
- suitable for food-contact applications
- good fire rating

Solid **Vivak®** sheets are made of thermoplastic copolyester. They offer high impact strength, a good fire rating and are fully recyclable.

Vivak® clear 099 is a clear transparent sheet with extremely high light transmission and high gloss. Vivak® clear 099 can be used for food-contact applications.

Applications:
Ideal fields of application for **Vivak®** 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® 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
PHYSICAL				
Density		1.27	g/cm³	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
MECHANICAL				
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/m²	ISO 179/1fU
	Charpy, notched	ca. 7	kJ/m²	ISO 179/1eA
	Izod notched	ca. 6	kJ/m²	ISO 180/1A
THERMAL				
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
ELECTRICAL				
Dielectric strength		16.1	kV/mm	IEC 60243-1
Volume resistivity		10^{15}	Ohm·cm	IEC 60093
Surface resistivity		10^{16}	Ohm	IEC 60093
Dielectric constant	at 10^3 Hz	2.6		IEC 60250
	at 10^6 Hz	2.4		IEC 60250
Dissipation factor	at 10^3 Hz	0.005		IEC 60250
	at 10^6 Hz	0.02		IEC 60250

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