Product data sheet, July 2022

Vivak® Med

Solid copolyester sheet for medical applications

I Line
Innovative

Your benefits:

- suitable for medical packaging applications
- good impact strength
- excellent thermoformability
- high clarity

Solid **Vivak® Med** sheets are made of Eastman Eastar™ 6763 copolyester and meet the ISO 10993/USP Class VI biocompatibility requirements. Like all other Vivak® sheets, they are clear transparent and combine high impact strength with excellent thermoforming properties.

Vivak® Med clear 099 is a clear transparent sheet with extremely high light transmission and high gloss. It can be subjected to several methods of sterilization, including Gamma-radiation and ethylene oxide.

Applications:
Ideal fields of application for **Vivak® Med** are: rigid medical packaging, containers and trays for medical devices, skin contact applications like prostheses.

Vivak® Med 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 machine.

	Test Conditions	Typical values	Unit	Standard
PHYSICAL				
Density		1.27	g/cm³	ISO 1183-1
Moisture absorption	24 h immersion 23°C	0.2	%	ISO 62
MECHANICAL				
Tensile stress at yield		› 45	MPa	ISO 527
Elongation at break		100	%	ISO 527
Tensile modulus		2100	MPa	ISO 527
Flexural modulus		2,000	MPa	ISO 178
Limiting flexural stress		68	MPa	ISO 178
Impact strength	Izod unnotched 23 °C and 20 °C	no break	kJ/m²	ISO 180/1A
	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	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

These are typical values and are not intended for specification purposes

EASTMAN
Vivak® MED is made of
Eastman Eastar™ 6763

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Light Transmission:
Test method according to DIN 5036. The stated values are typical values only.

Light transmission in %	0.6	0.75	1	1.5	2	2.5	3	4	5	6	8
Vivak® Med clear 099	90	90	90	90	89	89	88	88	87	86	85

Available sizes:
Vivak® Med clear 099 is available on request in thicknesses of 0.60-8 mm.

The sheets are also available in blue transparent color, and with anti-block properties, on request.
Please contact us.

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

Permanent Service Temperature:
The maximum permanent service temperature without load is approx. 65 °C.

Medical compatibility
Vivak® Med is produced based on 100% virgin resin which meets ISO 10993 and USP Class VI requirements. The sheets are produced under GMP conditions and under a quality management system which meets ISO 9001:2015.

The biocompatibility of the final product made out of **Vivak® Med** sheets for use in a medical application compliant with the medical regulations cannot be based solely on tests performed on the resin or the sheet. It is the sole responsibility of the manufacturer of the final end-use product to conduct all necessary tests (including biocompatibility tests) and inspections and to evaluate the final product under actual end-use requirements.

Please check our Medical Reference Guide for further information.

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

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