

Vivak® Med

Solid copolyester sheet for medical applications



Your benefits:

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

Solid **Vivak® Med** sheets are made of Eastman Easar™ 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 Moisture absorption	24 h immersion 23°C	1.27 0.2	g/cm ³ %	ISO 1183-1 ISO 62
MECHANICAL Tensile stress at yield Elongation at break Tensile modulus Flexural modulus Limiting flexural stress Impact strength	Izod unnotched 23 °C and 20 °C Izod notched	> 45 100 2100 2,000 68 no break ca. 6	MPa % MPa MPa MPa kJ/m ² kJ/m ²	ISO 527 ISO 527 ISO 527 ISO 178 ISO 178 ISO 180/1A ISO 180/1A
THERMAL Vicat softening temperature Thermal conductivity Coeff. of linear thermal expansion Heat deflection temperature under load	Method B50 Method A: 1.80 MPa Method B: 0.45 MPa	80 0.2 0.05 63 70	°C W/m K mm/m K °C °C	ISO 306 DIN 52612 DIN 53752-A ISO 75-2 ISO 75-2
ELECTRICAL Dielectric strength Volume resistivity Surface resistivity Dielectric constant Dissipation factor	at 10 ³ Hz at 10 ⁵ Hz at 10 ³ Hz at 10 ⁵ Hz	16 10 ¹⁵ 10 ¹⁶ 2.6 2.4 0.005 0.02	kV/mm Ohm·cm Ohm	IEC 60243-1 IEC 60093 IEC 60093 IEC 60250 IEC 60250 IEC 60250 IEC 60250

These are typical values and are not intended for specification purposes

EASTMAN

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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 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 Axpert®). For more information, take a look at www.exolongroup.com.



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The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance, information and recommendations to determine to your own satisfaction whether our products, technical assistance and information are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by Exolon Group. The biocompatibility testing referenced above cannot assure the biocompatibility of final or intermediate products made from Exolon Group products or the suitability of such products for their use in a Medical Application, i.e., the test data cannot be used to conclude that any medical devices manufactured from the Exolon Group products meet the necessary requirements of ISO Standard 10993-1. It is the sole responsibility of the manufacturer of 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. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with any claim of any patent relative to any material or its use. No license is implied or in fact granted under the claims of any patent.

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