

 Eurocast KEEP IT FRESH.	TECHNICAL SPECIFICATION	INDEX ST/Lamfol/WO
	LAMINATE POLYESTER FILM WITH PE FILM	Edition 20
	Lamfol GENERAL REQUIREMENTS	Date of description 23.12.2024
ul. Wejherowska 9, 84-220 Strzebielino, Poland		Page 1 / 2

APPLICATION

Lamfol films are designed to production packaging of thermoforming method.

CERTIFICATION FOR CONTACT WITH FOOD

Certification for contact with food is specified in the Technical Specification for each film type.

FILM IDENTIFICATION

Film wounds are marked with labels located inside cores and outside wounds.

Identification labels contain the following information: logo and manufactured name; production date; film width; wound number; film length; film thickness; tare; net weight; order confirmation number; PE side of laminate (outside / inside); graphical sing – "product certified for contact with food". Pallet units are marked with the label containing the following information: logo; manufactured address and phone; customer name; order confirmation number; material (tread name or type film); pallet number; number of rolls on pallet; roll number and net weight; film thickness; film width; core inside diameter; net weight; gross weight; PE side of laminate (outside / inside); graphical sing – "product certified for contact with food".

WOUND WEIGHT is consistent with weight indicated on wound identification labels.

Weight tolerance for a single film: $\pm 1\text{kg}$

VISUAL QUALITY OF THE FILM based on the PN-C-89258-1 standard from a distance of 0.5 m with the unaided eye in a well-lit field.

Scratches	Scratches lines on the surface of the film, most often in the machine direction	No scratches visible from 0,5 m on the surface of a single film layer
Orange peel	Orange peel effect on the film, most often in the machine direction.	Not visible with 0,5 m on the surface single layer
Shade of film	Differences in films shade	The shade of films may differ depending on the quality of the available postconsumer recycled content.
Gels	Unmelted transparent polymer	The presence of unmelted polymer in the form of transparent gels that do not form agglomeration and holes is allowed.
Stains	White longitudinal stains on the side of the PE layer	The presence of stains are allowed, the effect disappear after the thermoforming process

ORDER QUANTITY TOLERANCE

Order weight	Execution tolerance [%]
$\leq 2000\text{kg}$	$\pm 15\%$
$> 2000\text{kg}$	$\pm 10\%$

FILM WINDING QUALITY

Film width: 120mm – 1300mm

Film width tolerance: -0mm / +2mm in relation to film width specified in order confirmation and indicated at the wound identification labels

Maximum external wound diameter: 800mm

Maximum external wound diameter is consistent with diameter indicated at the order confirmation.

Internal sleeve diameter (nominal value/tolerance):

- 153mm / +0,5mm / - 0,5mm

- 76,5mm or 77,2mm / +0,5mm / - 0,5mm

Nominal value of internal sleeve diameter is consistent with value specified in the order confirmation.

Sleeve width tolerance in relation to nominal film width: -0mm / +2mm

Sleeve advancement in relation to the front of wound film: -0mm / +2mm

Film bonding

Maximum number of film bonding in the wound with external diameter $\leq 400\text{mm}$ -1

Maximum number of film bonding in the wound with external diameter $> 400\text{mm} \leq 600\text{mm}$ -2

Maximum number of film bonding in the wound with external diameter of $> 600\text{mm}$ -3

Film bonding is made using self-adhesive tape and marked with a red marker protruding beyond wound front, stick in the place of film bonding.

Quality of film winding at the wound – film wounds must meet the following criteria and must be free of the following faults

	DESCRIPTION	ALLOWABLE DEVIATION
Damaged wound edge	Film edge in the wound is cut, frayed or torn	No visible damage
Shift of fragments or single film layers in the plane of wound front	Irregular edge	Allowable shift $\leq 2\text{mm}$
Longitudinal crease	Permanent film line deformation in the machine direction (unwinding)	No permanent visible crease at the single film layer subjected to small tension
Transverse crease	Permanent film line deformation in the transverse direction (crosswise in unwinding direction)	No permanent visible crease at the single film layer subjected to small tension

	TECHNICAL SPECIFICATION	INDEX ST/Lamfol/WO
	LAMINATE POLYESTER FILM WITH PE FILM	Edition 20
	Lamfol GENERAL REQUIREMENTS	Date of description 23.12.2024
ul. Wejherowska 9, 84-220 Strzebielino, Poland		Page 2 / 2

Occurrence of inclusions

Inclusions ≤ 0.5mm² - maximum 20 per 100m²

Inclusions > 0.5mm²; < 3.0mm² - maximum 3 per 100m²

Inclusions ≥ 3.0mm²; < 5.0mm² - maximum 2 per 100m²

PACKING

With various methods of packing wounds and forming loading units at the pallets depending on weight and dimensions of film wounds, for each case a protection of film wounds against mechanical damage, dirt or dampness, that may occur during storage or transport have to be provided.

Packing standards

Width [mm]	Weight [kg]	Packing
≤ 1400	≤ 250	HORIZONTAL/VERTICAL
≤ 1400	> 250	HORIZONTAL
> 1400	≤ 250	
> 1400	> 250	

STORAGE

Pallet units must be stored indoors, in dry and clean rooms to avoid soaking, dampness and direct influence of ultraviolet rays and sunlight, that may reduce film properties (smell, mechanical properties, transparency, etc.)

Pallet units must be stored in temperature 15 to 25°C in a minimum distance 1.5 m from active heating devices and other heat sources. If those conditions are not met, process of film ageing may be accelerated.

Pallet unit can not be stored on the shelves. Storage on the shelves is permitted after prior arrangements with the company EUROCAST Sp. z o.o.

TRANSPORT

Film in original packing may be transported using roofed, dry, clean and free of intensive odors means of transportation according to transport regulations, securing load units against shifting, dirt and damage.

WARRANTY AND COMPLAINT CONDITIONS

- EUROCAST Sp. z o. o. gives a guarantee for the quality of laminate polyester film with PE film (trade name Lamfol) for a period of 6 months from the date of production. In the case of metalized films, we recommend processing and use of metalized films within 3 months and not exposed to moisture or sunlight.
- EUROCAST Sp. z o. o. guarantees the quality of sold foils according to the properties contained in this technical specification - General Terms and Technical Specifications for particular types of foil.
- The presentation of the delivery documents, labels of beams which are to be claimed and samples of faulty material or photographs enabling the identification of the fault is a condition for raising a claim by the Buyer. In case the above-mentioned documents are missing and the complaint is raised after expiration of the guarantee period, the complaints shall not be investigated.
- The complaints should be placed in the guarantee period in writing quoting the type of foil, thickness, amount and the description of the discovered fault or processing problems.
- Claimed foil until the completion of the claim process (it concerns also the return of the claimed foil to the producer's warehouse) should be packed, marked with labels and protected against damage. Claimed foil which shall be damaged during the investigation of the complaint due to improper protection or storage (faults not being the subject of claim shall be discovered) shall not be the subject of the complaint.
- Claimed foil cannot be returned to EUROCAST Sp. z o. o. without prior written consent of the supplier.
- Responsibility of EUROCAST Sp. z o. o. due to faults or shortage of goods is limited exclusively to duties described in GENERAL TERMS OF SALE.
- In the event of discovering hidden faults (having negative influence on further processing of foil – printing, laminating, etc.) the Buyer is obliged to stop processing the foil and inform EUROCAST Sp. z o. o. immediately in writing. EUROCAST Sp. z o. o. shall be responsible only for cost of processing of two first beams, but not more than 200 kg.
- The use of over 10% of the merchandise delivered in a lot (relates to faults which can be identified during quality control of the foil) of the quantity bigger than that indicated in p. 8 (relates to hidden faults of foil) in relation to which the fault was claimed, shall be tantamount to accepting by the Buyer the quality of the whole lot of the product.
- EUROCAST Sp. z o. o. shall investigate the complaint and inform the Buyer about the way of dealing with it within 21 days from the date of raising a claim. In the event of the necessity to carry on examinations of the foil in the external laboratory the above-mentioned term may change and the Buyer shall be informed in writing accordingly.
- In the event the claim is not accepted the Buyer may at its own cost order mediatory tests to an independent accredited laboratory, or not accredited if agreed by the parties. The collection of the sample for mediatory examinations must be taken in the presence of the EUROCAST Sp. z o. o. representative. Mediatory examinations made for the sample of the foil collected without the participation of the EUROCAST representative may be regarded as not credible.

***	Name	Position	Signature	Date
PREPARED BY	Damian Dziadowiec	Research and Development Manager	<i>Signatures on the original document</i>	23.12.2024
CHECKED BY	Paweł Osochocki	Production Manager		
APPROVED BY	Piotr Szymczak	Operations Director		
<i>This documentation is the property of EUROCAST Sp. z o. o. Providing access to this documentation without the owner's consent is prohibited</i>				