

| | | |
|--|---|---|
|  | TECHNICAL SPECIFICATION | INDEX ST/DM-DE/WO |
| | METALLIZED/COATED FILMS GENERAL REQUIREMENTS | Edition 4 |
| | | Date of description 4.01.2023 |
| ul. Wejherowska 9, 84-220 Strzebielino, Poland | | |

APPLICATIN

BOPET, BOPP, BOPA, MDOPE etc. films (transparent, metallized, AlOx or coated) are designed for food packaging, suitable for overprinting or laminating.

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; treated side film (outside / inside).

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; treated side film (outside / inside).

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

Weight tolerance for a single film: $\pm 1,0$ kg

ORDER QUANTITY TOLERANCE

| Order weight | Execution tolerance [%] |
|----------------|-------------------------|
| ≤ 1000 kg | ± 100 kg |
| > 1000 kg | $\pm 10\%$ |

FILM WINDING QUALITY

Film width: 400mm – 2400mm

Film width tolerance: - 2/+4 mm in relation to film width specified in order confirmation and indicated at the wound identification labels

Maximum external wound diameter: 970mm

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

Internal sleeve diameter (nominal value/tolerance):

- 152.5mm / +1mm /-1mm

- 76.2mm / +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 / +5mm

Sleeve advancement in relation to the front of wound film: -0mm / +5mm

Film bonding

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.

Maximum number of film bonding in the wound with external diameter ≤ 400 mm-1

Maximum number of film bonding in the wound with external diameter > 400 mm ≤ 600 mm-2

Maximum number of film bonding in the wound with external diameter of > 600 mm-3

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 |
|--|--|---|
| Turned up/ lifted wound edge | Film edge in the wound is lifted in relation to roll shape taking bell shape | Edge turn up ≤ 3 mm in relation to flat film surface in the wound |
| 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 ≤ 5 mm |
| Scratches | Delicate lines at the film surface, most often in the machine direction | No scratches visible from 1 m at the surface of single film layer |
| 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 |

METALLIZATION

Optical density: as ordered, test carried out according to the MB/MW/11 method

COATING OF ALUMINUM OXIDES (AlOx)

Optical density: in accordance with the Technological Process Specification

COATING

Dry quantity of the substance applied: quantity in accordance with the Technological Process Specification

| | | |
|--|--------------------------------|---|
|  | TECHNICAL SPECIFICATION | INDEX ST/DM-DE/WO |
| | METALLIZED/COATED FILMS | Edition 4 |
| | GENERAL REQUIREMENTS | Date of description 4.01.2023 |
| ul. Wejherowska 9, 84-220 Strzebielino, Poland | | |

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

| Internal sleeve diameter [mm] | External wound diameter [mm] | Wound width [mm] | Packing |
|----------------------------------|---------------------------------|---------------------|---------------------|
| 76, 152 | ≤ 780 | ≤ 800 | HORIZONTAL/VERTICAL |
| 152 | > 780 | > 800 | HORIZONTAL |

STORAGE

Pallet units must be stored indoors, in dry and clean rooms to avoid

- getting wet / damp – e.g. oxidation of the applied coating, loss of properties described in the Product Technical Specification.
- direct influence of direct sunlight - eg aging of the film, changes in mechanical and optical parameters.

Pallet units must be stored in temperature 10 to 30°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.

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 films covered by this Technical Specification, for a period of 5 months from the date of production, except
 - the guarantee for anti-fog properties (anti-fog - AF) is granted for 3 months from the date of production.
 - the guarantee for metallized film is 3 months from the date of production.
- 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 film.

The guarantee does not include the surface tension (activation level) which is defined in technical specifications related to particular types of film.
- 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 |
|---|-------------------|----------------------------------|--|------------|
| CHECKED BY | Damian Dziadowiec | Research and Development Manager | <i>Signatures on the original document</i> | 04.01.2023 |
| CHECKED BY | Paweł Oschocki | Chief of Production Department | | |
| APPROVED BY | Piotr Szymczak | Operation 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> | | | | |

| | | |
|--|--|---|
|  | TECHNICAL SPECIFICATION | INDEX ST/DM-DE/WO |
| | METALLIZED/COATED FILMS GENERAL REQUIREMENTS | Edition 4 |
| | | Date of description 4.01.2023 |
| <i>ul. Wejherowska 9, 84-220 Strzebielino, Poland</i> | | |