

MO51 Data Sheet

MO51

MATERIAL SPECIFICATIONS

Transparent or coloured amorphous polyester (A-PET) film that can be manufactured in 0.11 ÷ 1.5 mm thicknesses and up to 1450-mm widths. Typical applications are blisters with a high degree of transparency and gloss or packages for food and pharmaceutical products. It can be used on existing thermoforming plants. If heated, it crystallises at a temperature higher than 120°C. It is suitable for food applications thanks to a good oxygen and gas barrier and an excellent resistance to fats.

It is excellent as a base material for rotogravure, offset silkscreen and flexo printing (see HIPRINT MO59)

Technical specifications (250 micron film)	Trial method	Unit of measurement	Value
Specific weight	ASTM D 1505	G/cm ³	1.33
Gloss at 45°	ASTM D 2457		1.08
Transparency	ASTM D 1746	%	87
Elastic modulus	ASTM D 882	MPa	2700
Resiliency: • at 23°C • at -29°C	ASTM D 1709	g	405 175
Moisture permeability	ASTM F 372	g/m ² *24h	6.0
Oxygen permeability	ASTM D3985	cm ³ *mm/m ² *24h*atm	5.1
CO ₂ permeability	ASTM D1434	cm ³ *mm/m ² *24h*atm	28
Thermoforming temperature		°C	110
Thermoformed trays softening temperature		°C	70
Minimum utilisation temperature of thermoformed trays		°C	-40
TCS Critical surface tension (only for print application)		Dyne/cm	Face up 38 Face down 34 (In case of corona treatment 42 on the treated side)
Forming: • thin film (<0.6 mm) • heavy film (others)			GOOD FAIR
Surface resistivity (coating on demand)		ohm	10E9-10E12
Sterilization: • ETO • Gamma rays • Steam			YES YES NO
Thicknesses		mm	0.11 ÷ 1.5
Widths		mm	180-1450
Tolerances: • On thicknesses: 1. <0.120 thick 2. 0.120<Thick<0.200 3. >0.200 thick • On width		% mm	±10 ±8 ±5 ±1

CO-EXTRUSION

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COEXPAN Montonate has the possibility to co-extrude and also apply a surface coating which the film to meet the customer needs. The material can be supplied with various finishes (U, D, E, F, H, I, T, N) corresponding to different performances.

THERMOFORMING

The thermoforming condition needs to be checked at time intervals and temperatures to prevent crystallisation (film bleaching). Excellent thermoforming is obtained at a material temperature of $115 \div 120^{\circ}\text{C}$. We recommend you to let a period (approx. one week) from the extrusion in order to guarantee that the material reaches a homogeneous temperature and complete relaxation. The usual precautions should be adopted to prevent an anomalous absorption of humidity that could make the thermoformed-manufactured articles dull.

PACKING

Maximum weight of the rolls = 1000 kg. Internal cardboard (plastic on request) core diameter = 76 mm or 152. Two labels identify each roll - one placed inside the core and one on the outside – and it is protected with polyethylene film. They are normally packed horizontally on recyclable foamed polyurethane cradles and without protruding off the pallet edges.. If the material is supplied in sheets, they are protected with a PE film on one face (maximum weight 600 kg). Each pallet is identified with two labels and is protected with stretch PE. It is also possible to have customised packing on request.

STORAGE

The material must be stored in warehouses that protect it:

1. From the light
2. From temperatures below 8°C and above 30°C
3. From excessive ambient humidity, which must not exceed 70% RH
4. From pollution deriving from other substances stored in the proximity (e.g. soul-noxious odours)

The protective packing should be removed only in the moment the material is used.

If stored as recommended, the product can be used at least one year after the production date (printed on the label), except the TCS value (that is guaranteed only for 6 months). However, if used after three months from the production, the material should be examined before use to verify the suitability for the intended use.

Considering the sensitivity to the temperatures of the product, it's requested to keep the material in the room where it will be used at least 48hours before use.

ADDITIONAL INFORMATION

The product formulation complies with legislative requirements and recommendations of many countries in UE. In case specific legislative requirements are applicable, it is responsibility of the customer to inform Coexpan about such specific limitations.

The company however places its R & D department at your disposition for meeting any special customer needs.

The data, information and suggestions shown herein have simply indicative value. The company does not assume liability for results that may be obtained by using them or for their use in violation of any existing patents.

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