



# PETMET

## BT 1031

### Description

PETMET BT 1031 is a metallized biaxially oriented polyester (BOPET) film with excellent shiny metallic appearance and barrier properties. Non heat sealable. Metallized side is treated to give excellent adhesion for wide range of inks and lamination adhesives.

General purpose metallized film for printing, coating and lamination processes for flexible packaging applications. It is also an ideal substrate for decorative usages.

Primering onto metal surface for adequate ink adhesion is highly recommended for surface print applications. Please consult with your ink supplier for required primer grade.

**Please contact our sales department if both sides treated version (BT 1032) is required.**

### Properties

- Excellent shiny metallic appearance
- Good metal adhesion
- Excellent barrier properties
- High reflectivity to UV light
- Attractive decorative effect
- Excellent stiffness and machinability
- Good dimensional stability
- Excellent ink, coating and adhesive adhesion
- The film shelf life is 3 months

## Technical Features

| PROPERTIES                                     | TEST METHOD    | UNITS                        | BT 1031            |        |        |        |        |        |
|--|----------------|------------------------------|--------------------|--------|--------|--------|--------|--------|
| THICKNESS                                      | ASTM F 2251    | micron                       | 9                  | 10     | 12     | 23     | 36     | 50     |
|  |                | Gauge                        | 36                 | 40     | 48     | 92     | 144    | 200    |
| YIELD  | ASTM D 4321    | m <sup>2</sup> /kg           | 79,4               | 71,4   | 59,5   | 31,1   | 19,8   | 14,3   |
|  |                | in <sup>2</sup> /Lbs         | 55.800             | 50.200 | 41.800 | 21.800 | 13.900 | 10.000 |
| UNIT WEIGHT                                    | ASTM D 4321    | g/m <sup>2</sup>             | 12,6               | 14,0   | 16,8   | 32,2   | 50,5   | 69,9   |
| OXYGEN TRANSMISSION RATE<br>(23°C-0%RH)        | ASTM D 3985    | cc/m <sup>2</sup> /24hrs     | < 4                |        |        |        |        |        |
|  |                | cc/100in <sup>2</sup> /24hrs | < 0,26             |        |        |        |        |        |
| WATER VAPOUR TRANSMISSION RATE<br>(38°C-90%RH) | ASTM F 1249    | g/m <sup>2</sup> /24hrs      | < 0,4              |        |        |        |        |        |
|  |                | g/100in <sup>2</sup> /24hrs  | < 0,026            |        |        |        |        |        |
| TENSILE STRENGTH AT BREAK                      | ASTM D 882     | MD                           | N/mm <sup>2</sup>  | 240    |        |        | 200    |        |
|  |                |                              | lb/in <sup>2</sup> | 34.800 |        |        | 29.000 |        |
|  |                | TD                           | N/mm <sup>2</sup>  | 260    |        |        | 260    |        |
|  |                |                              | lb/in <sup>2</sup> | 37.700 |        |        | 37.700 |        |
| ELONGATION AT BREAK                            | ASTM D 882     | MD                           | %                  | 140    |        |        | 180    |        |
|  |                | TD                           |                    | 110    |        |        | 120    |        |
| THERMAL SHRINKAGE<br>(150 °C, 30 min, air)     | ASTM D 1204    | MD                           | %                  | 2,0    |        |        | 1,0    |        |
|  |                | TD                           |                    | 0,5    |        |        | 0,5    |        |
| COEFFICIENT OF FRICTION                        | ASTM D 1894    | Film/Film<br>(Dynamic)       | < 0,70             |        |        |        |        |        |
| OPTICAL DENSITY                                | MACBETH TD 931 | -                            | 2,2                |        |        |        |        |        |

Product Identification (Decision 97/129/EC): PET1

Metallization is a special process and aluminium coated surface is very sensitive to environmental conditions. Even though metal surface tension is above 40 dynes after production, it tends to decrease within time influencing by climatic conditions and storage periods. A guarantee of the duration of surface tension of metallized surface can not be given. We recommend to store metallized films in a dry place and at temperatures below 30°C. It is also advised to use metallized films as 'First in, First Out' principle. In-line treatment and/or priming onto metal surface for adequate ink or coating adhesion is strongly recommended. The metallized surface can normally be laminated with most of the substrates. Other properties of the metallized films are guaranteed for 6 months from the date of production.

The information contained in this data sheet is true and accurate according to current state of our knowledge and intended to give general information on our products and their applications. Above values are to be considered as guidelines and not as product specifications. Since the actual conditions of use are beyond our control, users are advised to make their own tests at their specific conditions of laboratory and/or actual use. We suggest our customers to determine final suitability for their specific end uses.

Also be advised that information on this data sheet shall not be construed as an inducement or recommendation to use any process or to manufacture or use any product in conflict with existing, pending or future patents.

For related spec sheet with tolerance values, please contact our sales departments

| STANDARD ROLL DIMENSIONS     |                          |                     |                 |
|------------------------------|--------------------------|---------------------|-----------------|
| CORE INNER DIAMETER (ID)     | CORE OUTER DIAMETER (OD) | LENGTH TOLERANCE    | WIDTH TOLERANCE |
| 76 mm (3 in) & 152 mm (6 in) | 530 mm & 790 mm *        | ± % 10 for all OD's | - 0 & + 4 mm    |

\* 790 mm OD is available for BOPET films above 400 mm width