



Product Information Platilon® M

Breathable Elastomer Films

Typical Properties

| Basic Material | | | Polyurethane | | | Polyether-Blockamide |
|---|--|-----------------------|--------------------|--------------------|--------------------|----------------------|
| Grade | | | 2202 AC | 2204 AC | U073 | M2234 |
| Property | Standard/Procedure | Unit | | | | |
| Density | calculated | g/cm ³ | 1,25 ¹⁾ | 1,26 ¹⁾ | 1,12 ¹⁾ | 1,05 ¹⁾ |
| Softening range | TMA Onset – Endset internal method | ° C | 155 - 180 | 160 - 180 | 160 - 200 | 165 - 175 |
| Hardness | DIN 7619-1, DIN EN ISO 868 or ASTM D2240 | Shore A | 82 ²⁾ | 90 ²⁾ | 87 ²⁾ | 90 ²⁾ |
| Tensile stress at break | DIN EN ISO 527 | MPa | 25 ³⁾ | 35 ³⁾ | 55 ³⁾ | 40 ³⁾ |
| Tensile strain at break | DIN EN ISO 527 | % | 650 ³⁾ | 500 ³⁾ | 600 ³⁾ | 650 ³⁾ |
| Water vapour transmission rate (film thickness 15 µm) | DIN 53122 38°C/90% r.H. | g/(m ² *d) | 5000 ⁴⁾ | 3500 ⁴⁾ | 2000 ⁴⁾ | 5500 ⁴⁾ |
| Dry cleaning | empirical | - | yes | yes | yes | yes |
| Laundry stability | empirical | ° C | ≤ 95 | ≤ 95 | ≤ 95 | ≤ 60 |
| Carrier Film (PE) | | | yes | yes ⁵⁾ | yes | no |

¹⁾ Calculated based on information by raw material suppliers and the film's composition.

²⁾ Based on data for the TPU resins provided by their suppliers and based on suppliers standard/procedure, not measured for film sample.

³⁾ The values given are averaged values over a longer period of time. The average values for certain product variants may vary up to +/- 30 % depending on thickness, width or orientation.

⁴⁾ The water vapor permeability is strongly dependent on the effective film thickness within the measuring range. The values given are averaged values over a longer period of time. More precise limits would be part of a possible specification.

⁵⁾ Thickness ≥ 25 µm available without PE-layer.

Film Formats

| | | |
|-----------|-------------------|---|
| Thickness | (μm) | 15 - 25 |
| Width | (mm) | 1600 -2000 (other width upon request) |
| Colours | | natural, white (other colours upon request) |

Regarding thickness and width, certain interdependencies may apply. Please consult with your customer service representative. Blown film may show an orientation in either machine or cross direction. MD/CD values may vary depending on thickness and width. Our "General Conditions of Sale" also apply.

Product Description

Platilon® M is the trade name for breathable elastomer films made by Covestro Films GmbH. The range currently comprises films based on thermoplastic polyether polyurethanes and polyether block amides.

Properties

Platilon® M films are known for the following properties:

- high flexibility/ elasticity over a wide temperature range down to -50°C
- breathable: wind tight, waterproof, but high water vapour transmission rate
- low noise
- soft haptic
- good resistance to laundering and dry cleaning
- good chemical and mechanical resistance
- free of plasticisers and solvents
- good adhesion to many adhesives and reaction foams

Applications

Their broad range of properties make Platilon® M films particularly suitable for use as functional layer in laminates for:

- sportswear, leisure wear and rainwear garments
- workplace and safety apparel
- shoes and gloves
- medical devices such as wound dressings, mattress covers

Processing

Suitable processes for lamination are:

- flame bonding
- back-foaming
- adhesive lamination by using hot melt, powders and pastes, bonding nets and nonwovens as well as spray adhesives.

Processing methods to apply adhesives to Platilon® M include:

- foam coating
- spray coating
- powder dot
- melt printing
- screen printing

The values provided within this Product Information are typical values only. Unless explicitly agreed in written form, they do not constitute a binding material specification or warranted values. Values may be affected by thickness and packaging, the processing conditions, coloring/pigmentation and additives of the product. Unless specified to the contrary, the property values given have been established on standardized test specimens at room temperature. The values represent the data set describing the general property profile of a certain product. They are for example not always part of the batch release procedure and therefore not subject of a regular quality specification underlying a statistical evaluation.

The manner in which you use 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 to determine suitability for your processing and intended uses. Your analysis must at least include testing to determine suitability from a technical, health, safety, and environmental and regulatory standpoint. Such testing has not necessarily been done by Covestro Films GmbH, and Covestro Films GmbH has not obtained any approvals or licenses for a particular use or application of the product, unless explicitly stated otherwise. If the intended use of the product is for the manufacture of a pharmaceutical / medicinal product, medical device¹⁾ or of pre-cursor products for medical devices or for other specifically regulated applications which leads or may lead to a regulatory obligation of Covestro Films GmbH, Covestro Films GmbH must explicitly agree to such application before the sale.

Any samples provided by Covestro Films GmbH are for testing purposes only and not for commercial use.

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.

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1) Please see the "Guidance on Use of Covestro Products in a Medical Application" document. For more information on Covestro products in Medical Applications, please request from your sales support contact our Guidance document: GUIDANCE ON USE OF COVESTRO PRODUCTS IN A MEDICAL APPLICATION.

