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## Polyethylene Lumicene® mPE M 5510 EP

Technical data sheet  
Metallocene Polyethylene BLOWN FILM  
Produced in Europe

### Description

Lumicene® mPE M 5510 EP is a second generation metallocene high density homopolymer Polyethylene.

Lumicene® mPE M 5510 EP can be processed at high output rates with low extrusion pressure, excellent bubble stability and gauge control in comparison with conventional LLDPE and first generation metallocene based polyethylene. The outstanding stiffness combined with good optical properties brings a significant down-gauging potential.

The high density of Lumicene® mPE M 5510 EP enables its use in applications with moisture barrier requirements, such as dry food packaging, and brings improved heat resistance, compared to commonly used HDPE.

Lumicene® mPE M 5510 EP is suited for many applications in the field of consumer, industrial, food or hygiene packaging such as bags, heavy-duty sacks, automatic packaging specialty film, mailing film and lamination.

### Characteristics

| Property                       | Method    | Unit              | Typical value (*) |
|--------------------------------|-----------|-------------------|-------------------|
| Density                        | ISO 1183  | g/cm <sup>3</sup> | 0.955             |
| Melt Flow Rate (190°C/2.16 kg) | ISO 1133  | g/10 min          | 1.2               |
| Melting temperature            | ISO 11357 | °C                | 134               |
| Vicat temperature              | ISO 306   | °C                | 133               |

(\*) Values indicated are typical for this product. Density and MFR are routinely measured during the standard quality control procedure. The other figures are generated by tests not included in the standard quality control procedure, and are given for information only. Data are not intended for specification purposes.

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Information contained in this publication is true and accurate at the time of publication and to the best of our knowledge. The nominal values stated herein are obtained using laboratory test specimens. These are typical values not to be construed as specification limits. Before using one of the products mentioned herein, customers and other users should take all care in determining the suitability of such product for the intended use. Unless specifically indicated, the products mentioned herein are not suitable for applications in the pharmaceutical or medical sector. The Companies within TotalEnergies Petrochemicals do not accept any liability whatsoever arising from the use of this information or the use, application or processing of any product described herein. No information contained in this publication can be considered as a suggestion to infringe patents. The Companies disclaim any liability that may be claimed for infringement or alleged infringement of patents.


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### Blown film properties

These values have been measured on a 40 µm blown film.

| Property                          | Method     | Unit | Typical value (*) |
|-----------------------------------|------------|------|-------------------|
| Tensile Strength at Yield MD/TD** | ISO 527-3  | MPa  | 27.5/28           |
| Tensile Strength at Break MD/TD** | ISO 527-3  | MPa  | 57/45             |
| Elongation at Break MD/TD**       | ISO 527-3  | %    | 870/910           |
| Elmendorf MD/TD**                 | ISO 6383-2 | N/mm | 11/90             |
| Dart test                         | ISO 7765-1 | g    | 100               |
| Haze                              | ISO 14782  | %    | 24                |
| Gloss 45°                         | ASTM D2457 |      | 40                |

(\*) Figures stated hereabove are obtained using laboratory test specimens produced with the following extrusion conditions: 45 mm screw diameter, L/D = 30, die diameter = 120 mm, die gap = 1.4 mm, BUR = 2.5:1, temperature = 210°C.

(\*\*) MD : Machine Direction, TD : Transverse Direction

### Handling and storage

Please refer to the safety data sheet (SDS) for handling and storage information. It is advisable to convert the product within one year after delivery provided storage conditions are used as given in the SDS of our product. SDS may be obtained from the website: [www.polymers.totalenergies.com](http://www.polymers.totalenergies.com).

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