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# Polyethylene Lumicene® mPE M 4040

Technical data sheet
Metallocene Polyethylene CAST FILM
Produced in Europe

## Description

Lumicene® mPE M 4040 is a second generation metallocene based Polyethylene with hexene as comonomer.

Lumicene® mPE M 4040 can be processed at high output rates with low extrusion pressure, low neck-in, excellent drawability and good gauge control in comparison with conventional LLDPE and first generation metallocene based polyethylene. The high stiffness combined with excellent optical properties brings a significant downgauging potential.

Lumicene® mPE M 4040 is a versatile resin that can be used in pure or in blend for the production of both monolayer and multilayer film. Main applications are: specialty film, hygiene film, embossed film, compounds and consumer and automatic packaging, such as produce bags, mailing and hygiene overwrap film.

## Characteristics

| Property | Method | Unit | Typical value |
|---|---|---|---|
| Density | ISO 1183 | g/cm³ | 0.940 |
| Melt Flow Rate (190°C/2.16 kg) | ISO 1133 | g/10 min | 4.0 |
| Melting temperature | ISO 11357 | °C | 126 |
| Vicat temperature | ISO 306 | °C | 122 |

Values indicated are typical for this product. Density and MFR are properties 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.

Polyethylene

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## Cast film properties

These values have been measured on a 20 µm cast film..

| Property | Method | Unit | Typical value |
|---|---|---|---|
| Tensile Strength at Yield MD/TD (**) | ISO 527-3 | MPa | 14.5/14.7 |
| Tensile Strength at Break MD/TD (**) | ISO 527-3 | MPa | 33/26 |
| Elongation at Break MD/TD (**) | ISO 527-3 | % | 480/610 |
| Elmendorf MD/TD (**) | ISO 6383-2 | N/mm | 11/90 |
| Dart test | ISO 7765-1 | g | 30 |
| Haze | ISO 14782 | % | 5.5 |
| Gloss 45° | ASTM D2457 | | 86 |

(*) Figures stated here above are obtained using laboratory test specimens produced at the following extrusion conditions: die gap = 250 µm, chill roll temperature = 20°C, throughput = 7 kg/h, melt temperature = 260 °C

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