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Polyethylene Lumicene® mPE M 6040

Technical data sheet
Metallocene Polyethylene CAST FILM
Produced in Europe

Description

Lumicene® mPE M 6040 is a second generation metallocene high density Polyethylene.

Lumicene® mPE M 6040 can be processed at high output rates with low extrusion pressure, low neck-in, excellent drawability and gauge control in comparison with conventional LLDPE and first generation metallocene based polyethylene. The high stiffness combined with good optical properties brings a significant down-gauging potential.

Lumicene® mPE M 6040 is a versatile resin that can be used in pure or in blend for the production of both monolayer and multilayer film. Typical applications are: specialty film, hygiene film, embossed film, compounds and consumer and automatic packaging, such as produce bags, mailing and hygiene overwrap film. The high density of Lumicene® mPE M 6040 enables its use in applications with moisture barrier requirements, such as dry food packaging, and brings improved heat resistance, compared to commonly used HDPE.

Characteristics

Property	Method	Unit	Typical value (*)
Density	ISO 1183	g/cm³	0.960
Melt Flow Rate (190°C/2.16 kg)	ISO 1133	g/10 min	4.0
Melting temperature	ISO 11357	°C	134
Vicat temperature	ISO 306	°C	132

(*) 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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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	23/24
Tensile Strength at Break MD/TD(**)	ISO 527-3	MPa	26/34
Elongation at Break MD/TD(**)	ISO 527-3	%	520/850
Elmendorf MD/TD(**)	ISO 6383-2	N/mm	8/70
Dart test	ISO 7765-1	g	40
Haze	ISO 14782	%	12
Gloss 45°	ASTM D2457		51

(*) Figures stated hereabove 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