+135-3858-6433 (GuangDong)
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+852-6957-5415 (HongKong)

TotalEnergies

Refining & Chemicals
Polymers

Polyethylene Lumicene® mPE M 4707 AP

Technical data sheet
Metallocene Polyethylene BLOWN FILM
Produced in Europe

Description

Lumicene® mPE M 4707 AP is a second generation metallocene based High Density Polyethylene with hexene as comonomer.

Lumicene® mPE M 4707 AP 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 combination of these features brings a significant downgauging potential.

Lumicene® mPE M 4707 AP is especially dedicated to film applications where high gloss and high transparency are required, particularly in blend and in coextrusion with LLDPE or LDPE.

Lumicene® mPE M 4707 AP is suited for many applications in the field of consumer, industrial, food or hygiene packaging such as bags, heavy-duty sacks, automatic packaging, mailing film and lamination.

Lumicene® mPE M 4707 AP does not contain any Polymer Processing Aid based on Perfluoroalkyl Substance (PFAS)

Characteristics

Property	Method	Unit	Typical value
Density	ISO 1183	g/cm³	0.947
Melt Flow Rate (190°C/2.16 kg)	ISO 1133	g/10 min	0.7
Melting temperature	ISO 11357	°C	131
Vicat temperature	ISO 306	°C	130

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.

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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	24/25
Tensile Strength at Break MD/TD (**)	ISO 527-3	MPa	39/38
Elongation at Break MD/TD (**)	ISO 527-3	%	610/750
Elmendorf MD/TD (**)	ISO 6383-2	N/mm	10/60
Dart test	ISO 7765-1	g	80
Haze	ISO 14782	%	14
Gloss 45°	ASTM D2457		50

(*) 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