TotalEnergies

Refining & Chemicals
Polymers

Polyethylene Lumicene® mPE M 1811 PCA

Technical data sheet
Metallocene Polyethylene BLOWN FILM
Produced in Europe

Description

Lumicene® mPE M1811 PCA is a metallocene based Linear Low Density Polyethylene with hexene as comonomer. This product contains slip and anti-block agents.

Lumicene® mPE M1811 PCA can be processed at high output rates with low extrusion pressure, excellent bubble stability and gauge control in comparison with conventional LLDPE and other metallocene based polyethylene.

Lumicene® mPE M1811 PCA is especially dedicated to film applications where excellent optical properties in combination with outstanding impact resistance (even at low temperature) and sealing strength are required, particularly in blend and coextrusion with LLDPE or LDPE.

Lumicene® mPE M1811 PCA is suited for many applications in the field of consumer, industrial, food or hygiene packaging such as bags, deep freeze, stretch hood and lamination.

Lumicene® mPE M1811 PCA does not contain any Polymer Processing Aid based on Perfluoroalkyl Substance (PFAS)

Characteristics

Property	Method	Unit	Typical value
Density	ISO 1183	g/cm³	0.918
Melt Flow Rate (190°C/2.16 kg)	ISO 1133	g/10 min	1.0
Melting temperature	ISO 11357	°C	111
Vicat temperature	ISO 306	°C	105

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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TOTALENERGIES ONE TECH BELGIUM
Zone Industrielle C
B-7181 Feluy
Belgium

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	10/10
Tensile Strength at Break MD/TD (**)	ISO 527-3	MPa	68/62
Elongation at Break MD/TD (**)	ISO 527-3	%	670/700
Elmendorf MD/TD (**)	ISO 6383-2	N/mm	105/165
Dart test	ISO 7765-1	g	>1200
Haze	ISO 14782	%	4.5
Gloss 45°	ASTM D2457		76

(*) 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.

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