

Description

Lumicene® mPE M 1810EP is a metallocene based Linear Low Density Polyethylene with hexene as comonomer.

Lumicene® mPE M 1810EP 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 M 1810EP 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 M 1810EP is suited for many applications in the field of consumer, industrial, food or hygiene packaging such as bags, deep freeze, stretch hood and lamination.

Characteristics

Property	Method	Unit	Typical value
Density	ISO 1183	g/cm ³	0.917
Melt Flow Rate (190°C/2.16 kg)	ISO 1133	g/10 min	1.0
Melting temperature	ISO 11357	°C	110
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.

Processing

Lumicene® mPE M 1810EP is typically extruded at a melt temperature around 200°C.

Lumicene® mPE M 1810EP can be blown easily at any of the following conditions:

Temperature: 180 to 230°C

- BUR : 1.5:1 to 4.5:1
- Die gap : 0.8 to 2.8 mm

An excellent blending ability of mPE M 1810EP with LDPE and LLDPE was observed.

Additives

Antioxidant : yes

PPA : yes



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	%	3.0
Gloss 45°	ASTM D2457		80

(*) 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

