+135-3858-6433 (GuangDong)
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Polyethylene Lumicene® mPE M2711 PCE

Refining & Chemicals
Polymers

Technical data sheet
Metallocene Polyethylene BLOWN FILM
Produced in Europe

Description

Lumicene® mPE M2711 PCE is a Metallocene based Linear Low Density Polyethylene with hexene as comonomer. This product contains slip and anti-block agents.

Lumicene® mPE M2711 PCE 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 down gauging potential.

Lumicene® mPE M2711 PCE is especially dedicated to film applications requiring low coefficient of friction (COF) and blocking properties while maintaining good optics, particularly in blend and in coextrusion with LLDPE or LDPE.

Lumicene® mPE M2711 PCE is suited for many applications in the field of consumer, industrial, food or hygiene packaging such as bags, deep freeze, collation shrink and lamination.

Characteristics

Property	Method	Unit	Typical value
Density	ISO 1183	g/cm³	0.927
Melt Flow Rate (190°C/2.16 kg)	ISO 1133	g/10 min	1.2
Melting temperature	ISO 11357	°C	119
Vicat temperature	ISO 306	°C	118

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 M2711 PCE is typically extruded at a melt temperature around 200°C. Lumicene® mPE M2711 PCE 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 M2711 PCE with LDPE and LLDPE was observed.

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Additives

Antioxidant: yes
Polymer processing aid: yes
Antiblocking agent: 750 ppm
Slip agent: 1250 ppm

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	13.5/14
Tensile Strength at Break MD/TD (**)	ISO 527-3	MPa	51/48
Elongation at Break MD/TD (**)	ISO 527-3	%	650/720
Elmendorf MD/TD (**)	ISO 6383-2	N/mm	60/170
Dart test	ISO 7765-1	g	230
Coefficient of friction static/dynamic	ASTM D1894	µs/µk	0.17/0.17
Haze	ISO 14782	%	8
Gloss 45°	ASTM D2457		65

(*) 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