+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

TotalEnergies

Refining & Chemicals
Polymers

Polyethylene Lumicene® mPE M 6012 AP

Technical data sheet
Metallocene Polyethylene BLOWN FILM
Produced in Europe

Description

Lumicene® mPE M 6012 AP is a metallocene High Density homopolymer Polyethylene designed to have High Water Vapour Barrier (low WVTR).

Lumicene® mPE M 6012 AP can be processed at high output rates with low extrusion pressure, excellent bubble stability and gauge control. The outstanding Water Vapor Barrier gives a significant down-gauging potential for some applications as dry food packaging.

Lumicene® mPE M 6012 AP does not contain any Polymer Processing Aid based on Perfluoroalkyl Substance (PFAS)

Characteristics

Property	Method	Unit	Typical value (*)
Density	ISO 1183	g/cm³	0.960
Melt Flow Rate (190°C/2.16 kg)	ISO 1133	g/10 min	1.2
Melting temperature	ISO 11357	°C	134

(*) 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.

Polyethylene

+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

TotalEnergies

Refining & Chemicals
Polymers

Polyethylene Lumicene® mPE M 6012 AP

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	27.5/31.5
Tensile Strength at Break MD/TD**	ISO 527-3	MPa	52.5/52
Elongation at Break MD/TD**	ISO 527-3	%	870/1040
Elmendorf MD/TD**	ISO 6383-2	N/mm	8/28
Dart test	ISO 7765-1	g	55
Haze	ISO 14782	%	15
Gloss 45°	ASTM D2457		54
Water Vapor Transmission Rate (38°C, 90%RH)***	ASTM E 96 E	g.35µm/m².day	1.6

(*) 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

(***) Result stated hereabove is obtained using film sample of 35µm produced with the following extrusion conditions: 45 mm screw diameter, L/D = 30, die diameter = 120 mm, die gap = 1.4 mm, BUR = 2.1:1, temperature = 210°C.