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

TotalEnergies

Refining & Chemicals
Polymers

Polyethylene Lumicene® mPE M 1820 AP

Technical data sheet
Metallocene Polyethylene BLOWN FILM
Produced in Europe

Description

Lumicene® mPE M 1820 AP is a Metallocene based Low Density Polyethylene with hexene as comonomer.

Lumicene® mPE M 1820 AP is especially dedicated to film applications where outstanding mechanical and optical properties are required. Moreover it offers excellent sealing behavior at low temperature.

Lumicene® mPE M 1820 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. Furthermore, Lumicene® mPE M 1820 AP has a very low gel level.

Lumicene® mPE M 1820 AP is suited for many applications such as :

- Food Packaging
- Lamination Film
- Blown Stretch Film
- Deep-Freeze Packaging
- FFS bags

Lumicene® mPE M 1820 AP does not contain any Polymer Processing Aid based on Perfluoroalkyl Substance (PFAS)

Characteristics

Property	Method	Unit	Typical value
Density	ISO 1183	g/cm³	0.918
Melt Flow Rate (190°C/2.16 kg)	ISO 1133	g/10 min	2.0
Melting temperature	ISO 11357	°C	110
Vicat temperature	ISO 306	°C	102.5

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	10/10
Tensile Strength at Break MD/TD (**)	ISO 527-3	MPa	59/55
Elongation at Break MD/TD (**)	ISO 527-3	%	644/705
Elmendorf MD/TD (**)	ISO 6383-2	N/mm	114/162
Dart test	ISO 7765-1	g	> 1000
Haze	ISO 14782	%	5.2
Gloss 45°	ASTM D2457		72

(*) 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