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Description

Lumicene® mPE M 2704 EP is a second generation metallocene based Low Density Polyethylene with hexene as comonomer.

Lumicene® mPE M 2704 EP can be processed at high output rates with 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 downgauging potential.

Lumicene® mPE M 2704 EP is suited for many applications in the field of consumer and industrial packaging, collation and industrial shrink as well as agricultural film.

Characteristics

Property	Method	Unit	Typical value
Density	ISO 1183	g/cm ³	0.927
Melt Flow Rate (190°C/2.16 kg)	ISO 1133	g/10 min	0.35
Melting temperature	ISO 11357	°C	121
Vicat temperature	ISO 306	°C	119

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 2704 EP is typically extruded at a melt temperature around 200°C. Lumicene® mPE M 2704 EP 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: 1.2 to 2.8 mm

An excellent blending ability of mPE M 2704 EP with LDPE and LLDPE was observed.

Refining & Chemicals

Polymers

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	14.5/15
Tensile Strength at Break MD/TD (**)	ISO 527-3	MPa	65/57
Elongation at Break MD/TD (**)	ISO 527-3	%	640/710
Elmendorf MD/TD (**)	ISO 6383-2	N/mm	40/150
Dart test	ISO 7765-1	g	220
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