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

TotalEnergies

Refining & Chemicals
Polymers

Polyethylene Lumicene® Supertough 12AST05

Technical data sheet
Metallocene Polyethylene BLOWN FILM
Produced in Europe
Provisional Datasheet

Description

Lumicene® Supertough 12AST05 is a polyethylene blown film grade that is especially designed to have an excellent processability on extrusion and conversion lines and to give a very high toughness – stability balance allowing new innovative multilayer film concepts.

Thanks to this innovative design, Lumicene® Supertough 12AST05 brings a huge down-gauging potential in the film market and easy incorporation in multilayer blown film structures.

Lumicene® Supertough 12AST05 does not contain any Polymer Processing Aid based on Perfluoroalkyl Substance (PFAS)

Characteristics

Property	Method	Unit	Typical value (*)
Density	ISO 1183	g/cm³	0.912
Melt Flow Rate (190°C/2.16 kg)	ISO 1133	g/10 min	0.65
Melting temperature	ISO 11357	°C	100
Vicat temperature	ISO 306	°C	93

(*) 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.

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Blown film properties

These values have been measured on a 40 µm blown film in low neck configuration.

Property	Method	Unit	Typical value (*)
Tensile Strength at Yield MD/TD (**)	ISO 527-3	MPa	8/8
Tensile Strength at Break MD/TD (**)	ISO 527-3	MPa	70/70
Elongation at Break MD/TD (**)	ISO 527-3	%	570/580
Elmendorf MD/TD (**)	ISO 6383-2	N/mm	60/100
Dart test	ISO 7765-1	g	>1950
Haze	ISO 14782	%	5
Gloss 45°	ASTM D2457		70

(*) 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 = 195°C.

(**) MD : Machine Direction, TD : Transverse Direction