+135-3858-6433 (GuangDong)
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+852-6957-5415 (HongKong)

TotalEnergies

Refining & Chemicals
Polymers

Polyethylene Lumicene® Supertough 40AST05

Technical data sheet
Metallocene Polyethylene BLOWN FILM
Produced in Europe

Description

Lumicene® Supertough 40AST05 is a metallocene polyethylene blown film grade that is especially designed to have an excellent balance of stiffness, toughness, processability and aesthetics.

Thanks to this innovative design, Lumicene® Supertough 40AST05 brings a huge down-gauging potential in the film market especially for the collation shrink application. It can also be used in many other multilayer applications to bring the desired properties needed to down-gauge.

Lumicene® Supertough 40AST05 does not contain any Polymer Processing Aid based on Perfluoroalkyl Substance (PFAS)

Characteristics

Property	Method	Unit	Typical value (*)
Density	ISO 1183	g/cm³	0.940
Melt Flow Rate (190°C/2.16 kg)	ISO 1133	g/10 min	0.5
Melting temperature	ISO 11357	°C	127
Vicat temperature	ISO 306	°C	122

(*) 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	19/21
Tensile Strength at Break MD/TD (**)	ISO 527-3	MPa	48/45
Elongation at Break MD/TD (**)	ISO 527-3	%	630/750
Elmendorf MD/TD (**)	ISO 6383-2	N/mm	16/155
Dart test	ISO 7765-1	g	135
Haze	ISO 14782	%	15
Gloss 45°	ASTM D2457		40

(*) Figures stated above 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