TOTAL Polyethylene Lumicene® M 6040

High Density Polyethylene

TOTAL Refining & Chemicals

Message:

Lumicene® mPE M 6040 is a second generation metallocene high density Polyethylene.
Lumicene® mPE M 6040 can be processed at high output rates with low extrusion pressure, low neck-in, excellent drawability and gauge control in comparison with conventional LLDPE and first generation metallocene based polyethylene. The high stiffness combined with good optical properties brings a significant down-gauging potential.
Lumicene® mPE M 6040 is a versatile resin that can be used in pure or in blend for the production of both monolayer and multilayer film. Typical applications are: specialty film, hygiene film, embossed film, compounds and consumer and automatic packaging, such as produce bags, mailing and hygiene overwrap film. The high density of Lumicene® mPE M 6040 enables its use in applications with moisture barrier requirements, such as dry food packaging, and brings improved heat resistance, compared to commonly used HDPE.

General Information	
Additive	Antioxidation
Features	Rigidity, high Optical Antioxidation Workability, good Low shrinkage
Uses	Packaging Films Bags Multilayer film Mixing Food packaging
Agency Ratings	EC 1907/2006 (REACH)
Processing Method	Film extrusion cast film

Physical	Nominal Value	Unit	Test Method
Density	0.960	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	4.0	g/10 min	ISO 1133
Films	**Nominal Value**	**Unit**	**Test Method**
Film Thickness - Tested	20	µm	
Tensile Stress			ISO 527-3
MD: Yield, 20 µm, cast film	23.0	MPa	ISO 527-3
TD: Yield, 20 µm, cast film	24.0	MPa	ISO 527-3
MD: Fracture, 20 µm, cast film	26.0	MPa	ISO 527-3
TD: Fracture, 20 µm, cast film	34.0	MPa	ISO 527-3

Tensile Elongation			ISO 527-3
MD: Fracture, 20 µm, cast film	520	%	ISO 527-3
TD: Fracture, 20 µm, cast film	850	%	ISO 527-3
Dart Drop Impact (20 µm, Cast Film)	40	g	ISO 7765-1
Elmendorf Tear Strength [1]			ISO 6383-2
MD : 20.0 µm	8.0	kN/m	ISO 6383-2
TD : 20.0 µm	70.0	kN/m	ISO 6383-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Vicat Softening Temperature	132	°C	ISO 306
Melting Temperature	134	°C	ISO 11357-3
Optical	**Nominal Value**	**Unit**	**Test Method**
Gloss (45°, 20.0 µm, Cast Film)	51		ASTM D2457
Haze (20.0 µm, Cast Film)	12	%	ISO 14782
Additional Information			
Laboratory test specimens produced at the following extrusion conditions: die gap = 250 µm, chill roll temperature = 20°C, throughput = 7 kg/h, melt temperature = 260 °C			
Extrusion	**Nominal Value**	**Unit**	
Melt Temperature	220 - 280	°C	
Take-Off Roll	20.0 - 80.0	°C	
NOTE			
1.	Cast Film		

Recommended distributors for this material

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