TOTAL Polyethylene Lumicene® M 6012 EP

High Density Polyethylene

TOTAL Refining & Chemicals

Message:

Lumicene® mPE M6012 EP is a metallocene High Density homopolymer Polyethylene designed to have High Water Vapour Barrier (low WVTR). Lumicene® mPE M6012 EP can be processed at high output rates with low extrusion pressure, excellent bubble stability and gauge control. The outstanding Water Vapour Barrier gives a significant down-gauging potential for some applications as dry food packaging.

General Information			
Additive	Processing aid Antioxidation		
Features	High density Homopolymer Antioxidation		
Uses	Packaging Mixing Food packaging		
Agency Ratings	EC 1907/2006 (REACH)		
Processing Method	Blow film		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	0.960	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.2	g/10 min	ISO 1133
Films	**Nominal Value**	**Unit**	**Test Method**
Film Thickness - Tested	40	µm	
Tensile Stress			ISO 527-3
MD: Yield, 40 µm, blown film	27.5	MPa	ISO 527-3
TD: Yield, 40 µm, blown film	31.5	MPa	ISO 527-3
MD: Broken, 40 µm, blown film	52.5	MPa	ISO 527-3
TD: Broken, 40 µm, blown film	52.0	MPa	ISO 527-3
Tensile Elongation			ISO 527-3
MD: Broken, 40 µm, blown film	870	%	ISO 527-3
TD: Broken, 40 µm, blown film	1000	%	ISO 527-3
Dart Drop Impact (40 µm, Blown Film)	55	g	ISO 7765-1
Water Vapor Transmission [1]	1.6	g/m²/24 hr	ASTM E96
Elmendorf Tear Strength			ISO 6383-1
MD	8.0	kN/m	ISO 6383-1
TD	28.0	kN/m	ISO 6383-1

Thermal	Nominal Value	Unit	Test Method
Melting Temperature	134	°C	ISO 11357-3
Optical	**Nominal Value**	**Unit**	**Test Method**
Gloss (45°, 40.0 µm)	54		ASTM D2457
Haze (40.0 µm)	15	%	ISO 14782
Extrusion	**Nominal Value**	**Unit**	
Melt Temperature	200 - 230	°C	
Extrusion instructions			
BUR: 1.5:1 to 4.5:1Die Gap: 0.8 to 2.8 mmLaboratory 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.			
NOTE			
1.	35 µm, 38 °C, 90% RH		

Recommended distributors for this material

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