

Lumicene® mPE M 4707 EP

High Density Polyethylene

TOTAL PETROCHEMICALS

Technical Data

Product Description

Lumicene® mPE M 4707 EP is a second generation metallocene based High Density Polyethylene with hexene as comonomer.

Lumicene® mPE M 4707 EP can be processed at high output rates with low extrusion pressure, 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 4707 EP is especially dedicated to film applications where high gloss and high transparency are required, particularly in blend and in coextrusion with LLDPE or LDPE.

Lumicene® mPE M 4707 EP is suited for many applications in the field of consumer, industrial, food or hygiene packaging such as bags, heavy-duty sacks, automatic packaging, mailing film and lamination.

General

Material Status	• Commercial: Active		
Literature ¹	• Technical Datasheet (English)		
Search for UL Yellow Card	• TOTAL PETROCHEMICALS		
Availability	• Asia Pacific	• Europe	
Additive	• Antioxidant	• Processing Aid	
Features	• Antioxidant • Hexene Comonomer	• High Clarity • High Gloss	• High Stiffness
Uses	• Bags • Blending • Film	• Food Packaging • Heavy-duty Bags • Industrial Applications	• Laminates • Packaging
Agency Ratings	• EC 1907/2006 (REACH)		
Forms	• Pellets		
Processing Method	• Blown Film	• Coextrusion	

Physical	Nominal Value Unit	Test Method
Density	0.947 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.70 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	24.0 MPa	
TD: Yield, 40 µm, Blown Film	25.0 MPa	
MD: Break, 40 µm, Blown Film	39.0 MPa	
TD: Break, 40 µm, Blown Film	38.0 MPa	
Tensile Elongation		ISO 527-3
MD: Break, 40 µm, Blown Film	610 %	
TD: Break, 40 µm, Blown Film	750 %	
Dart Drop Impact (40 µm, Blown Film)	80 g	ISO 7765-1
Elmendorf Tear Strength ³		ISO 6383-2
MD: 40.0 µm	10.0 kN/m	
TD: 40.0 µm	60.0 kN/m	

Thermal	Nominal Value Unit	Test Method
Vicat Softening Temperature	130 °C	ISO 306
Melting Temperature	131 °C	ISO 11357-3

Optical	Nominal Value Unit	Test Method
Gloss (45°, 40.0 µm, Blown Film)	50	ASTM D2457
Haze (40.0 µm, Blown Film)	14 %	ISO 14782

Extrusion	Nominal Value Unit
Melt Temperature	200 °C