

TOTAL PETROCHEMICALS Polyethylene LA 0710

TOTAL PETROCHEMICALS - Low Density Polyethylene

Thursday, February 19, 2015

General Information

Product Description

Low density polyethylene made by high pressure autoclave process without any additive.
Application examples: coating of paper, paperboard, aluminum,...
High draw down, low neck in.

General

Material Status	• Commercial: Active
Availability	• Europe
Features	• Good Drawdown • Low Neck-In
Uses	• Coating Applications • Paper Coatings
Agency Ratings	• EC 1907/2006 (REACH)
Forms	• Pellets
Processing Method	• Extrusion Coating

ASTM & ISO Properties

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density			
--	0.918 g/cm ³	0.918 g/cm ³	ISO 1183
--	0.0332 lb/in ³	918 kg/m ³	ISO 1183 ¹
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	7.5 g/10 min	7.5 g/10 min	ISO 1133
Melt volume-flow rate (190°C/2.16 kg)	0.610 in ³ /10min	10.0 cm ³ /10min	ISO 1133 ¹
Water Absorption (Saturation)	0.010 %	0.010 %	ISO 62 ¹
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			
--	24700 psi	170 MPa	ISO 527-2
--	26100 psi	180 MPa	ISO 527-2 ¹
Tensile Stress			
Yield	1310 psi	9.00 MPa	ISO 527-2
Break	1740 psi	12.0 MPa	ISO 527-2
Tensile Strain			
Yield	15 %	15 %	ISO 527-2 ¹
Break	450 %	450 %	ISO 527-2
Nominal strain at break	> 50 %	> 50 %	ISO 527-2 ¹
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature			
--	194 °F	90.0 °C	ISO 306
50°C/h, B (50N)	194 °F	90.0 °C	ISO 306 ¹
Melting Temperature (DSC)			
--	226 °F	108 °C	ISO 3146
-- ²	230 °F	110 °C	ISO 11357-3 ¹

TOTAL PETROCHEMICALS Polyethylene LA 0710

TOTAL PETROCHEMICALS - Low Density Polyethylene

Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface resistivity	1.0E+14 ohm	1.0E+14 ohm	IEC 60093 ¹
Volume resistivity	> 3.9E+14 ohm·in	> 1.0E+13 ohm·m	IEC 60093 ¹
Relative Permittivity (100 Hz)	2.00	2.00	IEC 60250 ¹
Dissipation Factor			IEC 60250 ¹
100 Hz	2.0E-4	2.0E-4	
1 MHz	2.0E-4	2.0E-4	
Comparative tracking index	600	600	IEC 60112 ¹
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Behav. at 1.6mm nom. thickn. 0.06 in (1.60 mm)	HB	HB	ISO 1210 ¹
Oxygen index	18 %	18 %	ISO 4589-2 ¹

Additional Information

The value listed as Melting Temperature, ISO 3146, was tested in accordance with ISO 11357.

Processing Information

Extrusion	Nominal Value (English)	Nominal Value (SI)
Cylinder Zone 1 Temp.	392 to 608 °F	200 to 320 °C
Cylinder Zone 2 Temp.	392 to 608 °F	200 to 320 °C
Cylinder Zone 3 Temp.	392 to 608 °F	200 to 320 °C
Cylinder Zone 4 Temp.	392 to 608 °F	200 to 320 °C
Cylinder Zone 5 Temp.	392 to 608 °F	200 to 320 °C
Die Temperature	500 to 608 °F	260 to 320 °C

Notes

¹ Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

² 18 °F/min (10 °C/min)