

PRODUCT DATA SHEET

MFR 1.0
 Density 920 **ETILINAS LL 0209SA**

Linear Low Density Polyethylene Heavy Duty Film Applications

DESCRIPTION

ETILINAS LL0209SA is a linear low density polyethylene suitable for a wide variety of film applications. This products complied with the U.S. Food and Drug Administration (US FDA) criteria for food contact application as specified in CFR 177.1520 (c) 3.1a & 3.2a and CFR 178.2010 and Commission Regulation (EU) No. 10/2011.

CHARACTERISTICS include:

- Easy processing
- Low gels content
- High melt strength
- Good film transparency
- Good mechanical properties
- Low blocking force and high slip

APPLICATIONS include:

- Food packaging
- Industrial packaging and garment bags
- Shopping bags

Product Properties*	Test Method	Units	Value
General Properties			
Melt Flow Rate, I ₂	ISO 1133 @ 190°C, 2.16kg	g/10min	1.0
Nominal Density	ISO 1183	kg/m ³	920
Melting Point	ISO 3146	°C	122
Vicat Softening Temperature	ASTM D 1525 (Load: 1 kg; Heating rate: 50°C/hr)	°C	100
Mechanical Properties			
Tensile Strength at Yield, (MD/TD)	ISO 527-3	MPa	11/12
Tensile Strength at Break, (MD/TD)	ISO 527-3	MPa	40/31
Elongation at Break, (MD/TD)	ISO 527-3	%	1300
Elmendorf Tear Strength, (MD/TD)	ISO 6383/2	g/25um	160/400
Dart Impact Strength	ISO 7765-1: (A)	g	160
Other Properties			
Clarity	ASTM D 1746	%	90
Gloss (45°)	ASTM D 2457	GU	52
Haze	ASTM D 1003	%	30
Coefficient of Friction (COF)	ISO 8295	-	0.14

*The physical properties shown are typical values obtained by averaging a number of test results and small divergence from quoted figures may occur.

Typical Processing Conditions

Processing temperature of ETILINAS LL 0209SA in the range of from 170°C~210°C depending on the .production throughput.

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SPECIFICATIONS

ETILINAS LL 0209SA complies with the following specification when processed using good extrusion practice:-

- FDA Regulation 21 CFR 177.1520.
- Commission Regulation (EU) No. 10/2011.
- HALAL certified, JAKIM/(S)/(22.00)/492/2/1 011-03/2011.

AVAILABILITY

ETILINAS LL 0209SA are available in 25kg bag and bulk bag. The product type and batch number are clearly marked on each bag.

STORAGE/HANDLING

ETILINAS LL 0209SA should be properly stored in well ventilated environment at a temperature of below 50°C. Prolonged or improper storage can result in deterioration of product properties. The PETRONAS Chemicals Safety Data Sheet (SDS) contains important safety information and should be viewed before using the product.

HEALTH & SAFETY

ETILINAS LL 0209SA is not classified as a dangerous preparation. Please refer to our Safety Data Sheet (SDS) for details on various aspects of safety, recovery and disposal of the product.

PRODUCT STEWARDSHIP

PCGB has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. Our Product Stewardship program rests with each and every individual involved with PCGB's products– from the initial concept and research, to manufacture, use, sale and disposal of each product.

RELATED DOCUMENTS

The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.

- Safety Data Sheet (SDS)
- Statement on chemicals, regulations and standards
- Statement on compliance to food contact regulations

FOR MORE INFORMATION

Please contact **PETRONAS Chemicals Group Berhad (PCGB)**, Level 15, Tower 1, PETRONAS TWIN TOWER, KLCC, 50088 KUALA LUMPUR, MALAYSIA.

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