

# PRODUCT DATA SHEET



**PETRONAS**

MFR 0.9

Density 920 **ETILINAS ALFATENE LL0209SP**

## Linear Low Density Polyethylene for Film Extrusion

### DESCRIPTION

ETILINAS ALFATENE LL0209SP is a linear low density polyethylene (LLDPE) copolymer with butene as comonomer, which contains anti-oxidant, slip agent and anti-block additives. It give film of high slip, which is easily separable. It is recommended for general-purpose film applications. It is suitable for blending with conventional low density polyethylene (LDPE).

### KEY CHARACTERISTICS:

- Contain slip agents and anti-block additives
- Greater drawdown capability
- Lower gel contents
- Easy processing and good bubble stability
- Good mechanical properties with low blocking and high slip

### APPLICATIONS :

ETILINAS ALFATENE LL0209SP designed for drawdown capability with balance in processing and toughness. It is suitable for blown film applications such as for refuse sacks, general purpose bag, food grade packaging and agricultural film.

General Properties	Test Method	Units	Value
Melt Flow Rate	ISO 1133 @ 190°C, 2.16kg	g/10min	0.9
Nominal Density	ISO 1183	kg/m <sup>3</sup>	920
Melting Point	ISO 3146—Method C	°C	122
Softening Temperature	ASTM D1525, Load 1kg, Heating rate: 50°C/hr	°C	100

Mechanical Properties	Test Method	Units	Value
Tensile Strength @ Yield (MD/TD)	ISO 527-3 Type 1B	MPa	11/12
Tensile Strength @ Break (MD/TD)	ISO 527-3 Type 1B	MPa	41/32
Elongation @ Break (MD/TD)	ISO 527-3 Type 1B	%	750/850
Elmendorf Tear Strength (MD/TD)	ASTM D1922	Gram/25μ	145/370
Dart Drop Impact	ASTM D1709	Gram	150

Other Properties	Test Method	Units	Value
Gloss (45°)	ASTM D2457	%	45
Haze	ASTM D1003	%	17

Note: The above are typical data representing the product; not to be construed as analysis certificate or specifications. User should confirm results by their own tests. Film properties are measured on 38μm film extruded at 2:1 blow-up ratio (BUR).

### Recommended Processing Temperature :

Processing temperature of ETILINAS LL0209SP is in the range of 170°C to 210°C depending on the production throughput.

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### AVAILABILITY

ETILINAS ALFATENE LL0209SP is available in 25kg bag and bulk bag. The product type and batch number are clearly marked on each bag.

### STORAGE/HANDLING

ETILINAS ALFATENE LL0209SP 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 ALFATENE LL0209SP 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

PETRONAS aims to increase awareness of all the hazards associated with the storage, handling and use of its products. Thoroughly reviewing the accompanying Safety Data Sheets and disseminating the information to all dependent and interested parties is an essential part of any 'Responsible Care' program.

### 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 standard statement on compliance to food contact regulations

### FOR MORE INFORMATION

Please contact **PETRONAS Chemicals Group Berhad (PCGB)**, Level 34, Tower 1, PETRONAS TWIN TOWERS, KLCC, 50088 KUALA LUMPUR, MALAYSIA.

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