



# LL8109KB

## Product Technical Information

LL8109KB is a LLDPE resin for blown film.

## Benefits & Features

LL8109KB is a linear low density polyethylene copolymer containing hexene-1 as the comonomer. It offers the following properties:

- Excellent impact strength and puncture resistance
- High slip
- High tear strength
- Good bubble stability
- Excellent sealing characteristics

## Applications

LL8109KB has been developed for use in rich blends for mulch film, refuse sacks, liners and other thin film applications where excellent mechanical performance and high slip are required.

If corona treatment is necessary, the level should normally be in the range 38-48 mN/m.

We recommend that you consult your INEOS O&P Europe technical representative for further advice on the use of LL8109KB.

Properties	Conditions	Test Methods	Values	Units
<b>Rheological</b>				
Melt Flow Rate	190°C/2.16kg	ISO 1133-1	0.9	g/10min
<b>Physical</b>				
Density ISO 17855-1	23°C	ISO 1183-1	920	kg/m <sup>3</sup>
<b>Mechanical*</b>				
Dart drop impact	Method A	ASTM D1709	400	g
Tensile Strength at Yield	MD/TD	ISO 527-3	10/10	MPa
Tensile Strength at Break	MD/TD	ISO 527-3	50/40	MPa
Elongation at break	MD/TD	ISO 527-3	565/710	%
1 % Secant modulus	MD/TD	ISO 527-3	185/205	MPa
Elmendorf tear strength	MD/TD	ASTM D1922	360/610	g/25 µm
Coefficient of friction		ASTM D1894	<0.25	-
<b>Optical</b>				
Haze		ASTM D 1003	11	%
Gloss	45°	ASTM D 2457	55	%
<b>Additives</b>				
Slip (Erucamide)		INEOS method	1200	ppm
Antiblock (Silica)		INEOS method	2200	ppm
Antioxidants				

Data should not be used for specification work

\* 25µm film, 2.5:1 blow-up ratio, 200 °C melt temperature – MD = machine direction, TD = transverse direction



# LL8109KB

## Processing guidelines

**LL8109KB** in lean blends can be processed on most standard extrusion equipment. Optimisation of conditions may be necessary, depending on the exact blend used.

**LL8109KB** rich film formulations are often processed on modified LDPE machinery, but for the best performance the use of purposely designed LLDPE machinery is recommended. Particular attention should be paid to maintaining a low melt temperature, and an efficient bubble cooling system should be employed. The recommended melt temperature range is 190 - 230°C.

## Storage

The product should be stored in a dry and dust free environment at temperature below 50°C. Exposure to direct sunlight should be avoided as this may lead to product deterioration.

It is advised to process the product within maximum one year after delivery.