

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
Rheological				
Melt Flow Rate	190°C/2.16kg	ISO 1133-1	0.9	g/10min
Physical				
Density ISO 17855-1	23°C	ISO 1183-1	920	kg/m ³
Mechanical*				
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	-
Optical				
Haze		ASTM D 1003	11	%
Gloss	45°	ASTM D 2457	55	%
Additives				
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



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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.

Regulatory Information

The product and uses described herein may be subject to specific requirements or limitations for use in certain applications like food contact, drinking water or medical devices. Further information may be obtained from the website www.ineos.com where a specific Regulatory Certificate is available for each grade under the heading "SDS & Regulatory Certificate".

Unless specifically indicated, the product mentioned herein is not suitable for applications in the medical or pharmaceutical sectors.

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