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LL8109AA

Product Technical Information

LLDPE for Blown film

Applications

- LL8109AA has been developed for use in rich blends for mulch film, refuse sacks, liners and other thin film applications where excellent mechanical performance is required.

Characteristics

LL8109AA is a linear low density polyethylene copolymer containing hexene-1 as the co-monomer. It offers the following properties:

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

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 LL8109AA.

Properties	Test Methods	Values	Units
Physical			
Melt Flow Rate	ISO 1133 Condition 4	0.9	g/10min
Density	ISO 1183 Method D	918	kg/m³
Vicat Softening temperature	ISO 306 Method A	100	°C
Additives : Antioxidant			

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Film*

Dart drop impact	Method A	ASTM D1709	295	g
Tensile stress @ yield	MD/TD	ISO 0527	11/12	MPa
Tensile stress @ break	MD/TD	ISO 0527	60/45	MPa
Elongation @ break	MD/TD	ISO 1184	590/750	%
1% Secant Modulus	MD/TD	ISO 1184	175/195	MPa
Elmendorf tear strength	MD/TD	ASTM D1922	350/640	g/25 µm
Haze		ASTM D1003	15	%
Gloss (45°)		ASTM D2457	41	‰

- 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

Extrusion conditions

LL8109AA in lean blends can be processed on most standard extrusion equipment. Optimisation of conditions may be necessary, depending on the exact blend used.

LL8109AA 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 range is 190 – 230°C.

Storage

LL8109AA should be stored in a dry and dust free environment at temperatures below 50°C. Exposure to direct sunlight should be avoided, as this may lead to product deterioration.

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Health and Safety Information

The product described herein may require precautions in handling. The available product health and safety information for this material is contained in the Material Safety Data Sheet (MSDS) that may be obtained from the website www.ineospolyolefins.com. Before using any material, a customer is advised to consult the MSDS for the product under consideration for use.

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