

LL3910AA

Product Technical Information

LL3910AA is a linear low density polyethylene copolymer containing hexene-1 as the comonomer.

Benefits & Features

- Very high stiffness and downgauging potential
- Good optical properties
- High temperature resistance
- High water vapour barrier properties
- High creep resistance
- Excellent sealability and hot-tack strength
- For shrink film, higher shrink holding force and improved burn-through resistance

Applications

LL3910AA is particularly suitable for use in lean and rich blend blown film applications, such as overwrap, counter bags, shrink film (lean blends, 10 to 30% LLDPE) and boil-in-the-bag applications.

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- High temperature resistance
- High water vapour barrier properties
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If corona treatment is necessary, the level should normally be in the range 38-48 mN/m.

We recommend that you consult your INEOS technical representative for further advice on the use of LL3910AA.

Properties	Conditions	Test Methods	Values	Units
Rheological				
Melt Flow Rate	190°C/2.16kg	ISO 1133-1	1	g/10min
Physical				
Density ISO 17855-1	23°C	ISO 1183-2	936	kg/m ³
Vicat softening temperature	Method A (10N)	ISO 306	121	°C
Mechanical				
1% Secant modulus		ISO 527-3	450	MPa
Dart drop impact	Method A	ASTM D1709	65	g
Elmendorf tear strength	MD/TD	ASTM D1922	35/325	gf/25 µm
Elongation at break	MD/TD	ISO 527-3	780 / 990	%
Tensile stress at break	MD/TD	ISO 527	54/36	MPa
Tensile stress at yield	MD/TD	ISO 527	18/21	Mpa
Optical				
Gloss	45°	ASTM D1003	50	GU
Haze		ISO 1133-1	13	%

Data should not be used for specification work



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Extrusion conditions

LL3910AA in lean blends can be processed on most standard extrusion equipment. Optimisation of conditions may be necessary, depending on the exact blend used.

LL3910AA 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 180 – 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.

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 Safety Data Sheet (SDS) that may be obtained from the website www.ineos.com. Before using any material, a customer is advised to consult the SDS for the product under consideration for use.

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