

# LL6910AA

## Product Technical Information

### LLDPE film products

### Applications

LL6910AA 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.

### Benefits and Features

LL6910AA is a linear low density polyethylene copolymer containing hexene-1 as the comonomer. It offers the following properties:

- ▣ 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

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

We recommend that you consult your INEOS Polyolefins technical representative for further advice on the use of LL6910AA.

Properties		Test Method	Value	Units
<b>Physical</b>				
Melt flow rate				
Condition 4		ISO 1133	1.0	g/10 min
Conventional Density		ISO 1183 Method D	936	kg/m <sup>3</sup>
Vicat softening temperature		ISO 306 Method A	121	°C
Additives: antioxidants				
<b>Film*</b>				
Dart drop impact		ASTM D1709 Method A	65	g
Tensile stress at yield	MD/TD	ISO 1184	18/21	MPa
Tensile stress at break	MD/TD	ISO 1184	54/36	MPa
Elongation at break	MD/TD	ISO 1184	780/990	%
1% Secant modulus		ISO 1184	450	MPa
Elmendorf tear strength	MD/TD	ASTM D1922	35/325	g/25 µm



# LL6910AA

Haze	ASTM D1003	13	%
Gloss (45°)	ASTM D2457	50	%

\* 38 µm film, 2:1 blow-up ratio, 225°C melt temperature  
MD = machine direction TD = transverse direction

## Extrusion conditions

LL6910AA in lean blends can be processed on most standard extrusion equipment. Optimisation of conditions may be necessary, depending on the exact blend used. LL6910AA 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

LL6910AA 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.



# LL6910AA

## Regulatory Information

The product and uses described herein may require global product registrations and notifications for chemical inventory listings, or for use in food contact or medical devices. For further information, send an email to [psnohreg@innovene.com](mailto:psnohreg@innovene.com). Unless specifically indicated, the products mentioned herein are not suitable for applications in the medical or pharmaceutical sector.

## 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](http://www.ineospolyolefins.com).

Before using any material, a customer is advised to consult the MSDS for the product under consideration for use.

## Exclusion of Liability

Although INEOS POLYOLEFINS endeavours to ensure that all information and advice relating to our materials or other materials howsoever provided to you by INEOS POLYOLEFINS is accurate and up to date, no representation or warranty, express or implied is made by INEOS POLYOLEFINS as to its accuracy or completeness. All such information and advice is provided in good faith and INEOS POLYOLEFINS is not, to the maximum extent permitted by law, liable for any action you may take as a result of relying on such information or advice or for any loss or damage, including any consequential loss, suffered by you as a result of taking such action.

In addition data and numerical results howsoever provided to you by INEOS POLYOLEFINS are given in good faith and are general in nature. Data and numerical results are not and shall not be regarded as specifications and as such INEOS POLYOLEFINS is not, to the maximum extent permitted by law, liable for any action that you take as a result of relying on such data and results or for any loss or damage, including any consequential loss, suffered by you as a result of taking such action.

It remains at all times your responsibility to ensure that INEOS POLYOLEFINS materials are suitable for the particular purpose intended and INEOS POLYOLEFINS shall not be responsible for any loss or damage caused by misuse of INEOS POLYOLEFINS products. To the maximum extent permitted by law, INEOS POLYOLEFINS accepts no liability whatsoever arising out of the application, adaptation or processing of the products described herein, the use of other materials in lieu of INEOS POLYOLEFINS materials or the use of INEOS POLYOLEFINS materials in conjunction with such other materials.