

# 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. This grade is also recommended for artificial grass applications.

## Benefits and Features

LL6910AA is a linear low density polyethylene copolymer containing hexene-1 as the co-monomer. 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 O&P Europe technical representative for further advice on the use of LL6910AA.

| Properties                  |       | Test Method          | Value   | Units             |
|-----------------------------|-------|----------------------|---------|-------------------|
| <b>Physical</b>             |       |                      |         |                   |
| Melt flow rate              |       | ISO 1133 Condition 4 | 1.0     | g/10 min          |
| 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 0527             | 18/21   | MPa               |
| Tensile stress at break     | MD/TD | ISO0527              | 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           |



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

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- Data should not be used for specification work

\* 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.



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## 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@ineos.com](mailto:psnohreg@ineos.com). Unless specifically indicated, the products mentioned herein are not suitable for applications in the medical or pharmaceutical sector.

## Health and Safety Information

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