

LL6910KJ

Product Technical Information

LLDPE film products

Applications

LL6910KJ 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 stand-up pouch applications.

Benefits and Features

LL6910KJ 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

LL6910KJ gives high slip film with easy opening properties when used pure in the thickness range 30 - 70 μm . Addition of other polymers, masterbatches and pigments, or use of other thicknesses may alter film slip and antiblock performance.

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 LL6910KJ.

| Properties | | Test Method | Value | Units |
|-----------------------------|-------|---------------------|---------|-------------------|
| Physical | | | | |
| Melt flow rate | | | | |
| Condition 4 | | ISO 1133 | 1.0 | g/10 min |
| Conventional Density | | ISO 1183 Method D | 937 | kg/m ³ |
| Vicat softening temperature | | ISO 306 Method A | 121 | °C |
| Slip (Erucamide) | | INEOS method | 800 | ppm |
| Antiblock (Silica) | | INEOS method | 400 | ppm |
| Additives: antioxidants | | | | |
| Film* | | | | |
| 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 | ISO 0527 | 54/36 | MPa |
| Elongation at break | MD/TD | ISO 1184 | 780/990 | % |

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|-------------------------|-------|------------|--------|-----------------|
| 1% Secant modulus | | ISO 1184 | 450 | MPa |
| Elmendorf tear strength | MD/TD | ASTM D1922 | 35/325 | g/25 μ m |
| Coefficient of friction | | ASTM D1894 | 0.23 | - |
| Haze | | ASTM D1003 | 15 | % |
| Gloss (45°) | | ASTM D2457 | 50 | % ₀₀ |

- Data should not be used for specification work

* 38 μ m film, 2:1 blow-up ratio, 230°C melt temperature - MD = machine direction TD = transverse direction

Extrusion

conditions

LL6910KJ in lean blends can be processed on most standard extrusion equipment. Optimisation of conditions may be necessary, depending on the exact blend used.

LL6910KJ 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

LL6910KJ 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

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