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/m³
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 µm
Coefficient of friction		ASTM D1894	0.23	-
Haze		ASTM D1003	15	%
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, 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.