



Eltex[®] PF6112AA

Provisional Product Technical Information

Eltex[®] PF6112AA is a metallocene LLDPE resin produced in Europe.

Benefits and Features

Eltex[®] PF6112AA is a polyethylene copolymer containing hexene-1 as the comonomer produced with a metallocene catalyst. It is a very high toughness material offering the following properties:

- Unrivalled impact strength
- Excellent puncture resistance
- Superior optical properties
- Very good bubble stability and extrudability similar to the best LLDPE blown film grades
- Low temperature sealing characteristics

Applications

Eltex[®] PF6112AA has been developed for use in food packaging and other thin film applications where superior mechanical and optical performance is required. It is also particularly suitable for relatively thick film applications requiring superior mechanical strength and easy sealing like liners for containers and silos. In addition, **Eltex[®] PF6112AA** offers easy extrudability.

In multilayer films, **Eltex[®] PF6112AA** can be used neat or as a blending partner with LLDPE or LDPE.

Properties	Conditions	Test Methods	Values	Units
Rheological				
Melt Flow Rate	190°C/2.16Kg	ISO 1133-1	1.3	g/10min
Physical				
Density ISO 1872-1	23°C	ISO 1183-2	916	kg/m ³
Mechanical*				
Dart drop impact Method A		ASTM D 1709	>1700	g
Tensile strength at Yield MD/TD		ISO 527-3	10 / 10	MPa
Tensile strength at break MD/TD		ISO 527-3	65 / 60	MPa
Tensile strain at break MD/TD		ISO 527-3	590 / 660	%
1% Secant modulus MD/TD		ISO 527-3	155 / 160	MPa
Elmendorf tear strength MD/TD		ASTM D 1922	220 / 420	g/25 µm
Optical*				
Haze		ASTM D 1003	5	%
Gloss	45°	ASTM D 2457	70	%
Thermal				
Peaks melting temperature (DSC)		INEOS Test Method	101 - 116	°C
Additives				
Other additives: antioxidants				

Data should not be used for specification work

* 25 µm film 2.5:1 blow-up ratio, 220°C melt temperature - MD = machine direction, TD = transverse direction



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Processing guidelines

Eltex[®] PF6112AA in lean blends can be processed on most standard extrusion equipment. Optimisation of conditions may be necessary, depending on the exact blend used.

Eltex[®] PF6112AA 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 190 - 230°C.

For more details, please refer to the metallocene processing guide.

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.

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