



Polyethylene FG5199

Linear Low Density Polyethylene for Film Extrusion

Description

FG5199 is a Butene Linear Low Density Polyethylene for Film Extrusion. Includes Antioxidant, Anti-Fog and Cling additives.

The grade is developed for blown cling film. Film made from FG5199 is suitable for manual wrapping of various foodstuffs e.g. cheese, meat and vegetables.

Applications

FG5199 has been developed especially for applications like:

Cling
Food packaging

Food wrap film
Lamination films

Additives

FG5199 contains antioxidant and antifog/cling additives.

Physical Properties

Property	Typical Value	Test Method
	Data should not be used for specification work	
Density	919 kg/m ³	ISO 1183
Melt Flow Rate (190 °C/2,16 kg)	1,2 g/10min	ISO 1133
Melting temperature	121 °C	ISO 11357-3

Film Properties

Film properties are measured on 25 µm film sample produced on a 60 mm W&H extruder with IBC cooling at BUR = 2,5:1. Film properties are strongly dependent of extrusion conditions.

Property	Typical Value	Test Method
	Data should not be used for specification work	
Dart Drop	70 g	ISO 7765-1
Tensile Stress at Yield ¹	TD 11 MPa	ISO 527-3
Tensile Strain at Break	MD 550 %	ISO 527-3
Tensile Strain at Break	TD 710 %	ISO 527-3
Tensile Strength	MD 32 MPa	ISO 527-3
Tensile Strength	TD 28 MPa	ISO 527-3
Tear resistance (Elmendorf)	MD 0,5 N	ISO 6383/2
	TD 3,8 N	

¹ MD = machine direction, TD = transverse direction.

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Processing Techniques

FG5199 is easily processed on conventional extruders.

Extruder screw giving mild compounding give good optical properties and good cling. Suitable die gaps are 1,8 - 2,3 mm. Blow up ratio should be around 2,5:1, to give optimal film properties. In order to obtain good optical properties and optimum cling effect, the frostline should be kept low. Good results are obtained with 400 - 500 mm height.

Low web tension is important for two reasons: - It allows the cling agent to migrate to the surface of the film, thus giving good cling effect. - It reduces the risk for telescoping. The web tension should not exceed 1,5% for 25 micron or thinner film.

Storage

FG5199 should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation, which results in odour generation and colour changes and can have negative effects on the physical properties of this product.

More information on storage is found in our "Safety data sheet" / "Product safety information sheet".

Safety

The product is not classified as dangerous.

Please see our "Safety data sheet" / "Product safety information sheet" for details on various aspects of safety, recovery and disposal of the product. For more information, contact your Borealis representative.

Recycling

The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.

Related Documents

The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.

"Safety data sheet" / "Product safety information sheet"
Statement on chemicals, regulations and standards
Statement on compliance to food contact regulations

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Disclaimer

The product(s) mentioned herein are not intended to be used for medical, pharmaceutical or healthcare applications and we do not support their use for such applications.

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