Polyethylene

FA5224

Low density polyethylene for Film Extrusion

Description

FA5224 is a Low Density Polyethylene for Film Extrusion. Autoclave Technology. Contains Antioxidant, Anti-block and Medium Slip additives.

This grade is developed to give strong film for medium duty applications.

CAS-No. 9002-88-4

Applications

FA5224 has been developed especially for applications like:

Carrier-bag film
Pouches
General packaging film

Additives

	Content	
Antiblock (Talc)	850 ppm	Borealis Method
Slip (Erucamide)	450 ppm	Borealis Method
Antioxidant	Yes	Borealis Method

Physical Properties

Property	Typical Value Data should not be used for specification work	Test Method
Density	922 kg/m³	ISO 1183
Melt Flow Rate (190 °C/2,16 kg)	1,2 g/10min	ISO 1133
Melting temperature	110 °C	ISO 11357-3

Film Properties

Film properties are measured on 40 µm film sample produced on a 60 mm W&H extruder with IBC cooling at BUR = 1:2,5.

Property			Typical Value Data should not be used for specification work	Test Method
Dart Drop			140 g	ISO 7765-1
Puncture resistance	Energy to break		2 J	ASTM D 5748
Haze			8 %	ASTM D 1003
Gloss			85	ASTM D 2457
Tensile Strain at Break [1]		MD	300 %	ISO 527-3
Tensile Strain at Break		TD	500 %	ISO 527-3
Tensile Strength		MD	26 MPa	ISO 527-3
Tensile Strength		TD	23 MPa	ISO 527-3
Tensile Modulus		MD	180 MPa	ASTM D 882-A
Tensile Modulus		TD	180 MPa	ASTM D 882-A
Tear resistance (Elmendorf)		MD	4 N	ISO 6383/2

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	TD	2 N	
Coefficient of friction (Dynamic)		0,15	ISO 8295

[1] MD = machine direction, TD = transverse direction.

Processing Techniques

FA5224 is easily processed on conventional extruders.

With suitable equipment FA5224 can be drawn down to 25-30 micron.

Recommended melt temperature range is from 160°C to 190°C.

Due to differences in screw and die head designs the optimum temperature adjustments are individual and should be sought for each production line.

Storage

FA5224 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 polymer additives and BSE
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.

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication; however we do not assume any liability whatsoever for the accuracy and completeness of such information.

Borealis makes no warranties which extend beyond the description contained herein. Nothing herein shall constitute any warranty of merchantability or fitness for a particular purpose.

It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.

No liability can be accepted in respect of the use of any Borealis product in conjunction with any other products and/or materials. The information contained herein relates exclusively to our products when not used in conjunction with any other material unless as specifically provided for in the test methods stated above.

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