



# Polyethylene FA3227

Low density polyethylene for Film Extrusion

## Description

**FA3227** is a low density polyethylene produced in a high-pressure process.

**FA3227** is a Low Density Polyethylene for Film Extrusion, UV stabilised.

This grade is suitable for building and construction film and meets the requirements for heat, alkali and UV resistance described in the building standards from the Nordic countries. A 150-micron film based upon FA3227 will last at least four times as long as an unstabilised film of the same thickness.

**CAS-No.** 9002-88-4

## Applications

**FA3227** has been developed especially for applications like:

Construction films  
Heavy-duty sack

Shrink film  
Liners

## Additives

**FA3227** is UV stabilised.

## Physical Properties

Property	Typical Value	Test Method
Density	922 kg/m <sup>3</sup>	ISO 1183
Melt Flow Rate (190 °C/2,16 kg)	0,3 g/10min	ISO 1133
Melting temperature	110 °C	ISO 11357-3



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## Film Properties

Film properties are measured on 125 µm sample produced on a 60 mm W&H extruder with IBC cooling at BUR = 1:2,5.

Property	Typical Value	Test Method
Data should not be used for specification work		
Dart Drop	450 g	ISO 7765-1
Puncture resistance	5 J	ASTM D 5748
Tensile Strain at Break <sup>1</sup>	MD 400 %	ISO 527-3
Tensile Strain at Break	TD 600 %	ISO 527-3
Tensile Strength (22 mm/min) (24 °C)	MD 25 MPa	ISO 527-3
Tensile Strength (22 mm/min) (24 °C)	TD 23 MPa	ISO 527-3
Tensile Modulus	MD 190 MPa	ASTM D 882-A
Tensile Modulus	TD 190 MPa	ASTM D 882-A
Tear resistance (Elmendorf)	MD 5 N	ISO 6383/2
	TD 6 N	
Coefficient of friction (Dynamic)	0,6	ISO 8295

<sup>1</sup> MD = machine direction, TD = transverse direction.

## Processing Techniques

FA3227 is easily processed on conventional extruders.

With suitable equipment FA3227 can be drawn down to 70-75 micron.

Recommended melt temperature range is from 170°C to 200°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

**FA3227** 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.

 **Polyethylene**  
**FA3227****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

**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.

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