

# Polyethylene FA3227

LDPE for Blown Film

## Description

**FA3227** is an autoclave, low-density polyethylene grade developed for standardised construction film.

**FA3227** is especially suited 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.

## Applications

**FA3227** is intended for construction film applications, but can also be used for heavy-duty bags, liners and shrink films.

## Additives

	Content	Unit	Additive
UV/heat stabilisation			HALS

## Physical Properties

		Typical Value*	Unit	Test Method
Density		922	kg/m <sup>3</sup>	ISO 1183
Melt Flow Rate	(190°C/2.16 kg)	0.3	g/10 min	ISO 1133
Melting Temperature		110	°C	ISO 11357/03
Vicat Softening Temperature	(A)	96	°C	ISO 306

\* Data should not be used for specification work

## Processing Guidelines

**FA3227** is easily processed on conventional extruders.

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.

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

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## Film properties\*\*

		Typical Value*	Unit	Test Method
Tensile Strength	MD/TD	25/23	MPa	ISO 527-3
Tensile Strain at Break	MD/TD	400/600	%	ISO 527-3
Tensile Modulus (0.05-1.05%)	MD/TD	190/190	MPa	ASTM D 882-A
Coefficient of Friction	(Dynamic)	0.6	-	ISO 8295
Dart Drop		450	g	ISO 7765/1
Elmendorf Tear Strength	MD/TD	5/6	N	ISO 6383/2
Puncture Resistance, force		130	N	ASTM D 5748
Puncture Resistance, energy		5	J	ASTM D 5748

\* Data should not be used for specification work

\*\* Film properties are measured on a 125- $\mu$ m film sample produced on a 60mm W&H extruder with IBC cooling at BUR=1:2,5.  
MD = machine direction, TD = transverse direction.

## Storage and handling

**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 the product.

## Safety


**FA3227** is not classified as a dangerous preparation.

Dust and fines from the product carry a risk of dust explosion. All equipment should be properly earthed. Inhalation of dust should be avoided as it may cause irritation of the respiratory system. Small amounts of fumes are generated during processing of the product. Proper ventilation is therefore required.

## 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.

A Safety Datasheet is available on request. Please contact your Borealis representative for more details on various aspects of safety, recovery and disposal of the product.



**Polyethylene**  
**FA3227**

### 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, SDS  
Environmental fact sheet  
Recovery and disposal of Polyolefins  
Information on Emissions from Processing and Fires

Liability statements on:

- Absence of Certain Chemicals
- Compliance to Food Contact Regulations.

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