29.09.2022 Ed.11

PRODUCT DATA SHEET

Polyethylene

FA3227

Low Density Polyethylene

Description

FA3227 is a low density polyethylene based on the autoclave technology for film extrusion.

Cas No. 9002-88-4

FA3227 contains:

Yes UV stabiliser

Typical characteristics

FA3227 can be described with following typical characteristics:

Bubble stability
Easy to extrude
Excellent shrink properties

Applications

FA3227 is intended for following applications:

Heavy-duty sacks
Liners
Shrink film
Construction film

Physical properties

Property	Typical value *	Unit	Test method
Density	922	kg/m³	ISO 1183-1
Melt flow rate (190 °C/2.16 kg)	0.3	g/10min	ISO 1133-1
Vicat softening temperature A50 (10 N)	92	°C	ISO 306
Melting temperature	110	°C	ISO 11357-3

* Data should not be used for specification work

Manufacturer website: https://www.borealisgroup.com/

Polyethylene

FA3227

Film properties

Property	Typical value *	Unit	Test method
Dart drop	450	g	ISO 7765-1
Tear resistance - Elmendorf[1]	5	N	ISO 6383-2
Tear resistance - Elmendorf[2]	6	N	ISO 6383-2
Tensile strength[1]	25	MPa	ISO 527-3
Tensile strength[2]	23	MPa	ISO 527-3
Tensile strain at break[1]	400	%	ISO 527-3
Tensile strain at break[2]	600	%	ISO 527-3
Tensile modulus[1]	190	MPa	ASTM D882
Tensile modulus[2]	190	MPa	ASTM D882
Gloss 45°	55	GU	ASTM D2457
Haze	14	%	ASTM D1003
Coefficient of friction (film/film)	0.6	-	ISO 8295

* Data should not be used for specification work

[1] *Machine direction*
[2] *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 shouldbe sought for each production line.

Packaging and storage

FA3227 should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation, which can result in odour generation and colour changes and can have negative effects on the physical properties of this product.

Product compliance documents

Latest versions of product safety information sheets (PSIS), product safety data sheets (SDS) and other product liability documents are available in our website www.borealisgroup.com.

Sustainability aspects

Borealis is ever mindful of the impact of our products on the planet. We promote Design for Circularity (DfC) and Design for Recycling (DfR) to conserve natural resources and to reduce the environmental impact of products over their entire lifetime (including production, use phase and after phase). DfR helps ensure that material can be effectively recycled while maximizing the material performance efficiency. Further information on sustainability and Design for Recycling (DfR) can be found from our websites www.borealisgroup.com and www.borealiseverminds.com.

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.

Borealis AG | Trabrennstrasse 6-8 | A-1020 Vienna | Austria
Telephone: +43 1 22 400 0* | Fax: +43 1 22 400 333
Website www.borealisgroup.com

BOREALIS