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PRODUCT DATA SHEET

Polyethylene

FA5223

Low Density Polyethylene

Description

FA5223 is a low density polyethylene based on the autoclave technology for film extrusion.

Cas No. 9002-88-4

FA5223 contains:

850	ppm	Antiblocking agent
Yes		Antioxidant

Typical characteristics

FA5223 can be described with following typical characteristics:

Bubble stability	Easy to extrude

Applications

FA5223 is intended for following applications:

Food packaging	Shrink film
Heavy-duty sacks	General packaging film
Pouches	

Physical properties

Property	Typical value *	Unit	Test method
Density	922	kg/m³	ISO 1183-1
Melt flow rate (190 °C/2.16 kg)	1.2	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

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FA5223

Film properties

Property	Typical value *	Unit	Test method
Dart drop	140	g	ISO 7765-1
Tear resistance - Elmendorf[1]	4	N	ISO 6383-2
Tear resistance - Elmendorf[2]	2	N	ISO 6383-2
Tensile strength[1]	26	MPa	ISO 527-3
Tensile strength[2]	23	MPa	ISO 527-3
Tensile strain at break[1]	300	%	ISO 527-3
Tensile strain at break[2]	500	%	ISO 527-3
Tensile modulus[1]	180	MPa	ASTM D882
Tensile modulus[2]	180	MPa	ASTM D882
Gloss 45°	67	GU	ASTM D2457
Haze	8	%	ASTM D1003
Coefficient of friction (film/film)	0.8	-	ISO 8295

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[1] *Machine direction*
[2] *Transverse direction*

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.

Processing techniques

FA5223 is easily processed on conventional extruders.
With suitable equipment FA5223 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.

Packaging and storage

FA5223 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.

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