PRODUCT DATA SHEET

Polyethylene

Borstar® BB2588

High Density Polyethylene for Blow Moulding

Description

Borstar BB2588 is a multimodal High Density High-Molecular Weight Polyethylene produced by the proprietary Borstar® technology ideal for production of small part blow moulding applications up to 10 litres in volume combining high stiffness, superior environmental stress cracking resistance and excellent processability.

Cas No. 25087-34-7

Typical characteristics

Borstar BB2588 can be described with following typical characteristics:

- Superior environmental stress cracking resistance
- High stiffness
- Excellent processability

Applications

Borstar® BB2588 is intended for following applications:

Blow moulding

Bottles and containers up to 10 litres

Corrugated pipes

Cable-in-Conduit / Cable duct

Household and chemical containers such as detergents, cleaners, motor oils

Non-pressure pipe systems

Borstar BB2588 is recommended for production of bottles and containers up to 10l where high environmental stress crack resistance is needed. It is ideal resin for production of milk and fruit juices containers, cosmetics, toiletries and household care products and general purpose containers. Borstar BB2588 can also be used as stiffener in blown film applications where gels are not critical.

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Physical properties

Property	Typical value *	Unit	Test method
Density	958.0	kg/m³	ISO 1183-1
Melt flow rate (190 °C/2.16 kg)	0.22	g/10min	ISO 1133-1
Melt flow rate (190 °C/5 kg)	0.90	g/10min	ISO 1133-1
Melt flow rate (190 °C/21.6 kg)	23.0	g/10min	ISO 1133-1
Flex modulus 23°C/24h	1400	MPa	ISO 178
Izod impact resistance, notched (23°C) [1]	159	J/m	ASTM D256
Izod impact strength, notched (23 °C) [1]	29	kJ/m²	ISO 180
Melting temperature	132	°C	ISO 11357-3
Crystallisation temperature	117	°C	ISO 11357-3
Vicat softening temperature A50 (10 N)	127	°C	ISO 306
Tensile modulus (>96h)	1300	MPa	ISO 527-2
Tensile strain at yield (50 mm/min)	8	%	ISO 527-2
Tensile stress at yield (50 mm/min)	30	MPa	ISO 527-2
ESCR 10% 2mm F50 [2]	≥1000	h	ASTM D2561
ESCR 10% 2mm F50	≥500	h	ASTM D1693-B
Shore-D 1s	66	-	ISO 868
Charpy notched (>96h 23°C)	12	kJ/m2	ISO 179-1

* Data should not be used for specification work

[1] *A +23°C*
[2] *Measured on blow moulded specimen*

Processing techniques

Borstar BB2588 is easy to extrude and can be used in all conventional blow-moulding machines.

Processing setting	Typical value/range
Barrel temperature	170 -190 °C
Die temperature	175 - 190 °C
Melt temperature	170 - 200 °C

Packaging and storage

Borstar BB2588 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.

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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.

Regional Availability

Europe

South America

Africa

For information on regional availability please contact Borealis Sales Representative.

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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