

## Polyethylene

# BorSafe™ ME3444

## Light blue PE80 Medium Density Polyethylene compound for pressure pipes

### Description

BorSafe ME3444 is a bimodal polyethylene compound produced by the advanced Borstar technology.

It is a readymade compound, including a carefully selected combination of pigments and stabilizers to ensure excellent long-term thermal stability and UV-resistance for limited outdoors storage of the final product.

BorSafe ME3444 is classified as an MRS 8.0 material (PE80).  
Furthermore, it has a pigment system that gives a bright colored stripe, even when extruded as a thin layer on a black pipe.

### Applications

BorSafe™ ME3444 is intended for following applications:

Drinking water

BorSafe ME3444 is recommended for pressure pipe systems in the application fields above.

### Specifications

BorSafe ME3444 is expected to meet the applicable requirements included in the below mentioned standards provided it is processed using sound material handling and processing practices as well as appropriate testing procedures.

EN 12201

ISO 4427

BorSafe ME3444 provides an improved performance level in terms of drinking water related requirements such as migration limits. The sensoric properties like taste & odour are regularly monitored for the compound to ensure a high constant level of quality. The material shows excellent mechanical toughness and crack resistance also at lower temperatures. Thanks to the molecular structure, it offers outstanding extrudability and good melt strength, supporting a problem-free extrusion process to tight tolerances.  
BorSafe ME3444 is also recommended to extrude identification stripes onto black pipes produced from BorSafe materials. As the material is already a documented pressure pipe material, it also fulfills the requirements for a stripe compound according to EN 12201-2 and ISO 4427-2.

### Physical properties

Property	Typical value *	Unit	Test method
Density	948	kg/m <sup>3</sup>	ISO 1183-1/Method A
Melt flow rate ( 190 °C/5 kg)	0.80	g/10min	ISO 1133-1
Resistance to weathering = 7GJ/m <sup>2</sup> , tests acc. to EN 12201-1	Pass	Pass	EN ISO 16871
Oxidation induction time ( 210 °C)	≥30	min	ISO 11357-6
Resistance to slow crack growth ( 8 bar 80 °C)	>2000	h	ISO 13479
Moisture content <sup>1</sup>	≤300	ppm	ISO 15512
Pigment dispersion	≤3	-	ISO 18553
Tensile modulus ( 1 mm/min)	800	MPa	ISO 527-2
Tensile strain at break	>600	%	ISO 527-2
Tensile stress at yield	20	MPa	ISO 527-2

\* Data should not be used for specification work

<sup>1</sup> Karl Fischer-titration

### Processing techniques

The actual conditions will depend on the type of equipment used.

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Processing setting	Typical value/range
Cylinder temperature	180 - 210 °C
Head temperature	200 - 210 °C
Die temperature	200 - 210 °C
Melt temperature	200 - 220 °C

Specific recommendations for processing conditions can be determined only when the application and type of equipment are known. For normal conditions and applications we suggest preheating and drying. Please contact your local Borealis representative for such particulars.

### Packaging and storage

BorSafe ME3444 shall be stored indoors below 50°C in unopened original packaging in clean and dry environment. It is recommended to ensure proper stock rotation by using first in – first out principle. Following afore-mentioned conditions the material can be stored for a period of up to 3 years after production. However, caution shall be taken regarding the moisture level. It is recommended to measure the moisture after longer storage periods prior to processing.

### 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](http://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](http://www.borealisgroup.com) and [www.borealiseverminds.com](http://www.borealiseverminds.com).

### Regional Availability

Europe

North America

South America

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.

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.