



# Polyethylene BorSafe™ ME3441

Yellow PE80 Polyethylene compound for pressure pipes

## Description

**BorSafe™ ME3441** 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 ME3441 is classified as an MRS 8.0 material (PE80).

## Applications

**BorSafe ME3441** is recommended for pressure pipe systems in the applications field of:

Natural gas

## Specifications

**BorSafe ME3441** is intended to fulfill following International standards, when appropriate industrial manufacturing standard procedures are applied and a continuous quality system is implemented.

EN 1555 / ISO 4437 <sup>1</sup>

<sup>1</sup> pipe wall thickness  $e \leq 22,7$  mm; MOP  $\leq 5$  bar

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.

## Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density	945 kg/m <sup>3</sup>	ISO 1183-1, Method A
Melt Flow Rate (190 °C/5,0 kg)	0,80 g/10min	ISO 1133
Tensile Modulus (1 mm/min)	800 MPa	ISO 527-2
Tensile Strain at Break	> 600 %	ISO 527
Tensile Stress at Yield (50 mm/min)	20 MPa	ISO 527
Oxidation Induction Time (210 °C)	$\geq 30$ min	ISO 11357-6
Moisture <sup>1</sup>	$\leq 300$ ppm	ISO 15512
Resistance to slow crack growth (8 bar, 80 °C)	> 2.000 h	ISO 13479
Pigment dispersion	$\leq 3$	ISO 18553
Resistance to weathering $\geq 7$ GJ/m <sup>2</sup> , tests acc. to EN 1555-1	Pass	EN ISO 16871
Resistance to gas condensate	Pass	EN1555-1

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

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## Processing Techniques

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

### Extrusion

Cylinder	180 - 210 °C
Head	200 - 210 °C
Die	200 - 210 °C
Melt temperature	200 - 220 °C

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

## Storage

**BorSafe ME3441** 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.

## Safety

Please see our "Safety data sheet" / "Product safety information sheet" for details on various aspects of safety, recovery and disposal of the product. For more information, contact your Borealis representative.

## 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.

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## Related Documents

The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the products.

Recovery and disposal of polyolefins  
Information on emissions from processing and fires  
"Safety data sheet" / "Product safety information sheet"

**Polyethylene****BorSafe ME3441****Issuer:**

Marketing Pipe / Norbert Jansen  
Product Management / Christian Merz

**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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