Polyethylene BorSafe™ ME3444

Light blue PE80 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).

Applications

BorSafe ME3444 is recommended for pressure pipe systems in the applications field of:

Drinking water

Specifications

BorSafe ME3444 is intended to fulfill following International standards, when appropriate industrial manufacturing standard procedures are applied and a continuous quality system is implemented.

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.

Physical Properties

Property	Typical Value Test Method Data should not be used for specification work		
Density	948 kg/m³	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	20 MPa	ISO 527	
Oxidation Induction Time (210 °C)	>= 30 min	ISO 11357-6	
Moisture ¹	<= 300 ppm	ISO 15512	
Resistance to slow crack growth (8 bar, 80 °C)	> 2.000 h	ISO 13479	
Pigment dispersion	<= 3	ISO 18553	
Resistance to weathering ≥7GJ/m², tests acc. to EN12201-1	Pass	EN ISO 16871	

¹ Karl Fischer-titration

BorSafe is a trademark of the Borealis group.

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BorSafe ME3444

Processing Techniques

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

Extrusion

Cylinder180 - 210 °CHead200 - 210 °CDie200 - 210 °CMelt temperature200 - 220 °CFor normal conditions and applications we suggest preheating and dr

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 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.

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"



BorSafe ME3444

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.

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.

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