



Polyethylene™ BorPEX™ HE1878E

High Density Polyethylene for Crosslinked Pipes (PE-X)

Description

BorPEX HE1878E is a high molecular weight, high density polyethylene specially designed for production of crosslinked pipes (PE-X)

Applications

BorPEX HE1878E is recommended for the production of crosslinked pipes used in

Plumbing
Heating
Domestic gas
Domestic water

District heating
Relining
Industrial applications

Specifications

BorPEX HE1878E is intended to fulfill following standards and regulations, in case of appropriate industrial manufacturing standard procedures applied and a continuous quality system is implemented.

DIN 16892
DIN 16893

EN ISO 15875
ASTM F 876

Special features

BorPEX HE1878E is a free flowing powder for the PE-Xa, peroxide crosslinking process. The material is only stabilized for transporting and storage. Crosslinking agent (e.g. peroxide) and stabilisers have to be added by the pipe manufacturer. Good crosslink response and well-balanced powder size distribution enable effective soaking and a stable pipe production.

processability
product consistency

Economical pipe production
Cleanliness

Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density (Base Resin)	951 kg/m ³	ISO 1183
Melt Flow Rate (190 °C/21,6 kg)	10 g/10min	ISO 1133
Tensile Strain at Break	> 600 %	ISO 527-2
Tensile Stress at Yield	22 MPa	ISO 527-2

BorPEX is a trademark of Borealis A/S, Denmark.

Borealis AG | Wagramerstrasse 17-19 | 1220 Vienna | Austria
Telephone +43 1 224 00 0 | Fax +43 1 22 400 333
FN 269858a | CCC Commercial Court of Vienna | Website www.borealisgroup.com

 Polyethylene
BorPEX HE1878E**Processing Techniques**

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

Extrusion

The actual extrusion conditions will depend on the type of equipment used. They will also depend on size and wall thickness of the pipe produced.

BorPEX HE1878E is successfully used in the industry on the older RAM (Engel) process as well as on the newer type of screw extrusion equipment in combination with different PE-Xa crosslinking methods.

Crosslinking

The product has been tailored for the screw extrusion process in combination with the infrared cross-linking method.

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

BorPEX HE1878E should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation, which results in odour generation and colour changes and can have negative effects on the physical properties of this product.

Safety

The product is not classified as a dangerous preparation.

Please see our Safety Data Sheet for details on various aspects of safety, recovery and disposal of the products, for more information contact your Borealis representative.

Recycling

Please see our Safety Data Sheet for details on various aspects of safety, recovery and disposal of the product, for more information contact your Borealis representative.

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

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Safety Data Sheet
Statement on compliance to food contact regulations
Statement on compliance to regulations for drinking water pipes

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 Borealis' products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any third party materials.

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