



# Polyethylene BorPEX™ HE2595

High Density Polyethylene for Crosslinked Pipes (PE-X)

## Description

**BorPEX HE2595** is a high molecular weight, high density polyethylene specially designed for production of crosslinked pipes (PE-X)

## Applications

**BorPEX HE2595** is recommended for the production of crosslinked pipes used in

Domestic water  
Heating  
Relining  
Plumbing

Industrial applications  
Domestic gas  
District heating

The product is used for single as well as for multilayer pipes, where you then differentiate between plastic multilayer with integrated EVOH layer and aluminium multilayer pipes.

## Specifications

**BorPEX HE2595** 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 HE2595** is a ready made compound in pellet form for the production of crosslinkable pipes by the electron beam beta-irradiation process (PE-Xc) and included is a specially selected additive package to ensure:

Enhanced processability  
Economical pipe production  
Effective crosslinking behaviour

Excellent product consistency  
High temperature resistance  
High resistance to additive washout

The product is black coloured using well dispersed carbon black.

## Physical Properties

Property	Typical Value	Test Method
	Data should not be used for specification work	
Density (Base Resin)	944 kg/m <sup>3</sup>	ISO 1183
Density (Compound)	955 kg/m <sup>3</sup>	ISO 1183
Melt Flow Rate (190 °C/21,6 kg)	7,5 g/10min	ISO 1133
Tensile Strain at Break	> 600 %	ISO 527-2
Tensile Stress at Yield (50 mm/min)	18 MPa	ISO 527-2
Carbon black content	2,2 %	ASTM D 1603

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](http://www.borealisgroup.com)



# Polyethylene

# BorPEX HE2595

## 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.

Typically an HDPE extruder with modified screw design for HMW materials is used. The inner and outer surface of the pipe can be optimized with an additional heating unit at the tip of the die tool.

Melt temperature	210 - 230 °C
Tooling	220 °C

### Crosslinking

Whereas normal PE requires higher irradiation dose, we recommend 8-12MRad for this product. This means less energy consumption and higher speed or thicker pipe walls possible when crosslinked.

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 HE2595** 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.

## 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.

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.



# Polyethylene BorPEX HE2595

## 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  
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.