

# Polyethylene HE1878E

High Density Polyethylene for Crosslinked Pipes (PE-X)

## Description

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

## Applications

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

Plumbing	District heating
Heating	Relining
Domestic gas	Industrial applications
Domestic water	

## Specifications

**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	EN ISO 15875
DIN 16893	ASTM F 876

## Special features

**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	Economical pipe production
product consistency	Cleanliness

## Physical Properties

Property	Typical Value	Test Method
<small>Data should not be used for specification work</small>		
Density (Base Resin)	951 kg/m <sup>3</sup>	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

## Processing Techniques

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

## Extrusion

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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.

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

**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 dangerous.

Please see our "Safety data sheet" / "Product safety information 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" / "Product safety information 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  
 "Safety data sheet" / "Product safety information sheet"  
 Statement on compliance to food contact regulations  
 Statement on compliance to regulations for drinking water pipes

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