PRODUCT DATA SHEET

01.04.2025 Ed.1

Polyethylene

HE2590

Crosslinkable PE (PEX)

Description

HE2590 is a high molecular weight, high density polyethylene specially designed for production of crosslinked pipes (PE-X)

Typical characteristics

HE2590 can be described with following typical characteristics:

Enhanced processability
Effective crosslinking behaviour
Economical pipe production
High temperature resistance
Excellent product consistency
High resistance to additive washout

HE2590 is a ready made compound in pellet form for the production of crosslinkable pipes by the electron beam beta-irradiation process (PE-Xc) including a specially selected additive package.

Applications

HE2590 is intended for following applications:

District heating
Domestic gas
Domestic water
Heating
Industrial applications
Plumbing
Relining

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

HE2590 and/or articles produced from it, are expected to meet the applicable requirements included in the below mentioned standards provided it is processed using sound material handling and processing practices as well as appropriate testing procedures.

ASTM F876
DIN 16892
EN ISO 15875

Physical properties

Property	Typical value *	Unit	Test method
Density	945.5	kg/m³	ISO 1183-1
Melt flow rate (190 °C/21.6 kg)	9.0	g/10min	ISO 1133-1

* Data should not be used for specification work

Processing techniques

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

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

Manufacturer website: https://www.borealisgroup.com/

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Packaging and storage

HE2590 shall be stored indoors below 50°C in unopened original packaging in clean and dry environment and protected from UV-light. It is recommended to ensure proper stock rotation by using first in – first out principle. Following aforementioned conditions the material can safely 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. 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.

Product compliance documents

Latest versions of product safety information sheets (PSIS), product safety data sheets (SDS) and other product liability documents are available on our website www.borealisgroup.com.

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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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.
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