

PRODUCT DATA SHEET

POLYETHYLENE

HE1490

Natural HDPE

DESCRIPTION

HE1490 is a natural, bimodal HDPE offers excellent melt strength and process ability for drip lateral and sprinkler pipe extrusion.

HE1490 has optimized weldability and high mechanical properties like, tensile strength, and elongation. It is produced with the proprietary Borstar® bimodal technology which provides the polymer very high ESCR and longer service life in agriculture.

CAS-No. 25087-34-7

APPLICATIONS

HE1490 is recommended for:

Range of wall thickness drip irrigation tubing for online drip laterals and flat as well as cylindrical emitting pipe/inline production
 Sprinkler Irrigation Pipes
 Non Pressure Utility Pipes
 Thin Walled Corrugated Pipes

KEY FEATURES

HE1490 offers excellent balance of ESCR, process-ability and mechanical properties.

PHYSICAL PROPERTIES

Property	Typical Value*	Test Method
Density	948 kg/m ³	ASTM D 792
Melt Flow Rate (190°C/5.0kg)	0.35 g/10min	ASTM D1238
Tensile Modulus (1mm/min)	1050Mpa	ISO 527-2
Melting Temperature	130 °C	ISO 11357/03
Charpy Notched Impact (23°C)	20KJ/m ²	ISO 179
Charpy Notched Impact (-20°C)	15KJ/m ²	ISO 179
ESCR – 10% Igepal – F 50%	>1000 Hours	ASTM D1693-B

* Typical properties and data should not be used for specification work

PROCESSING CONDITIONS

The actual extrusion conditions will depend on type of equipment used and the size and wall thickness of the pipe required. Following conditions should be used as a guide for starting up the extruder.

Barrel zone 180 – 210°C

Die zone

190 – 210°C

Please contact your local Borouge representative for specific recommendations for processing conditions.

STORAGE

This product should be stored in dry conditions at temperature 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 physical properties of this product.

More information on storage can be found in Safety Information Sheet (SIS) for this product.

SAFETY

HE1490 is not classified as a hazardous mixture.

Dust and fines from the product carry a risk of dust explosion. All equipment should be properly earthed. Inhalation of dust should be avoided as it may cause irritation of the respiratory system. Small amounts of fumes are generated during processing of the product. Proper ventilation is therefore required.

Please see our Safety Information Sheet (SIS) for details on various aspects of safety, recovery and disposal of the product, for more information contact your Borouge 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.

RELATED DOCUMENTS

The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.

Safety Information Sheet
Statement on chemicals, regulations and standards
Statement on compliance to regulations for drinking water pipes

STANDARDS

Borouge is certified to various ISO standards, please refer to Borouge.com for more information.

DISCLAIMER

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.

Borouge 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 Borouge's 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.

Borstar® is a trademark of the Borealis group.

Jan 2018