

## PRODUCT DATASHEET

# POLYETHYLENE LE1711

## BORSTAR® BIMODAL ENHANCED POLYETHYLENE

### LLDPE for Drip Irrigation Emitting Pipes and Plain Laterals

#### DESCRIPTION

**LE1711** is produced using the proprietary **Borstar®** bimodal technology combining outstanding mechanical properties with easy process ability and good gloss.

**LE1711** has optimized weld ability and high mechanical properties like, tensile strength, and elongation. Our proprietary Borstar® bimodal technology provides the polymer very high ESCR and longer service life in agriculture.

**LE1711** contains Antioxidant and processing Aid (PPA).

#### APPLICATIONS

LE1711 is recommended for range of wall thickness drip irrigation tubing drip laterals and flat as well as cylindrical emitting pipe/inline production.

General purpose application like blending for IM and thick extruded products.

#### KEY FEATURES

Easy process ability

Excellent Mechanical Strength

Excellent balance of ESCR

Superior Puncture Resistance

#### PHYSICAL PROPERTIES

Property	Typical Value*	Unit	Test Method
Density	917	Kg/m <sup>3</sup>	ASTM D 792
Melt Flow Rate MFR (190 °C/2.16 kg)	1.2	g/10min	ASTM D1238
Melting Temperature	123	°C	ISO 11357/03
Tensile strength at yield	15	%	ISO 527-2
Tensile strength at Break	45	MPa	ISO 527-2
Oxidation Induction Time ( 200 °C)	≥20	min	ISO 11357-6
ESCR – 10% Igepal / F50	>1000	Hours	ASTM D 1693

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

## PROCESSING GUIDELINES

The actual extrusion conditions will depend on type of equipment 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.

## SAFETY

The product 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.

## 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.

## 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

August 2020