

 **Polyethylene**
BorSafe™ HE3493-LS
 Natural High Density Polyethylene compound for pressure pipes

Description

BorSafe HE3493-LS is a bimodal polyethylene compound produced by the advanced Borstar technology.

The product contains some UV stabilizer to ensure a limited outdoor storage capability for the pipes.

BorSafe HE3493-LS is classified as an MRS 10.0 material (PE100).

Applications

BorSafe HE3493-LS is recommended for:

- | | |
|---------------------|---|
| Corrugated pipes | Co-extrusion of layers for pressure pipes |
| Relining | Glass fibre ducts |
| Sheets and profiles | Cable protection pipes |
| Industrial | |

It is especially designed for the production of larger diameter, thick wall pipe, but can be processed for the whole range of diameters. It also shows excellent resistance to rapid crack propagation and slow crack growth.

Physical Properties

Property	Typical Value	Test Method
	Data should not be used for specification work	
Density (Compound)	951 kg/m ³	ISO 1183-1, Method A
Melt Flow Rate (190 °C/5,0 kg)	0,3 g/10min	ISO 1133
Tensile Modulus (1 mm/min)	1.000 MPa	ISO 527-2
Tensile Strain at Break (50 mm/min)	> 600 %	ISO 527-2
Tensile Stress at Yield (50 mm/min)	25 MPa	ISO 527-2
Oxidation Induction Time (210 °C),	> 20 min	ISO 11357-6
Resistance to rapid crack propagation (S4 test, Pc at 0 °C, Test pipe 250 mm, SDR11)	> 10 bar	ISO 13477
Resistance to slow crack growth (9,2 bar, 80 °C)	> 500 h	ISO 13479

Processing Techniques

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

Extrusion

- | | |
|------------------|--------------|
| Cylinder | 190 - 210 °C |
| Head | 200 - 210 °C |
| Die | 200 - 210 °C |
| Melt temperature | 200 - 220 °C |

Specific recommendations for processing conditions can be determined only when the application and type of equipment are known. For normal conditions and applications we suggest preheating and drying. Please contact your local Borealis representative for such particulars.

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Storage

BorSafe HE3493-LS shall be stored indoors below 50°C in unopened original packaging in clean and dry environment.

It is recommended to ensure proper stock rotation by using first in – first out principle. Following afore-mentioned 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.

Safety

The product is not classified as dangerous.

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" / "Product safety information sheet" for details on various aspects of safety, recovery and disposal of the product. For more information, contact your Borealis representative.

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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