# Polyethylene
# BorSafe™ HE3490-LS-H

Black High Density Polyethylene compound for pressure pipes

## Description

**BorSafe HE3490-LS-H** is a bimodal polyethylene compound produced by the advanced Borstar technology.

It includes a combination of pigments and stabilisers to ensure excellent long-term thermal stability and UV-resistance.

BorSafe HE3490-LS-H is classified as an MRS 10.0 material (PE100).

## Applications

**BorSafe HE3490-LS-H** is recommended for

Drinking water
Natural gas
Pressure sewerage
Relining
Sea outfall
Industrial

It is especially designed for the production of larger diameter, thick wall pipe, but can be processed for the whole range of diameters.

## Special features

**BorSafe HE3490-LS-H** is a high density hexene copolymer compound with an oustanding resistance to slow crack growth.

## Physical Properties

| Property | Typical Value<br>Data should not be used for specification work | Test Method |
|---|---|---|
| Density (Base Resin) | 948 kg/m3 | ISO 1872-2/ISO 1183 |
| Density (Compound) | 959 kg/m3 | ISO 1872-2/ISO 1183 |
| Melt Flow Rate (190 °C/5,0 kg) | 0,25 g/10min | ISO 1133 |
| Tensile Modulus (1 mm/min) | 1.100 MPa | ISO 527-2 |
| Tensile Strain at Break | > 600 % | ISO 527-2 |
| Tensile Stress at Yield (50 mm/min) | 25 MPa | ISO 527-2 |
| Carbon black content | 2 - 2,5 % | ISO 6964 |
| Oxidation Induction Time (210 °C), | > 20 min | EN 728 |
| 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) | > 5.000 h | ISO 13479 |

## Processing Techniques

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



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**Extrusion**

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

For normal conditions and applications we suggest preheating and drying. 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

**BorSafe HE3490-LS-H** should be stored in dry conditions at temperatures below 60°C and protected from UV-light. Improper storage can initiate degradation.

## Safety

The product is not classified as a dangerous preparation.

## 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 for details on various aspects of safety, recovery and disposal of the product, for more information contact your Borealis representative.

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**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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