

# BorSafe™ HE3490-LS

High Density Polyethylene

Borealis AG

## Message:

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

Well dispersed carbon black gives outstanding UV resistance. Long term stability is ensured by an optimised stabilisation system.

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

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.

General Information	
Additive	Carbon black (2%) Unspecified stabilizer UV stabilizer
Features	Good UV resistance Good cracking resistance Good stability
Uses	Industrial application Piping system
Agency Ratings	PPI PE-100
Appearance	Black
Forms	Particle
Processing Method	Pipeline extrusion molding Extrusion

Physical	Nominal Value	Unit	Test Method
Density <sup>1</sup>	0.959	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/5.0 kg)	0.25	g/10 min	ISO 1133
Carbon Black Dispersion			ISO 18553
Carbon Black Content	> 2.0	%	ASTM D1603
Resistance to Slow Crack Growth <sup>2</sup> (80°C)	> 1000	hr	ISO 13479
resistant to rapid crack propagation, Pc-S4 test <sup>3</sup> (0°C)	> 10.0	bar	ISO 13477
Oxidation Induction Time <sup>4</sup> (200°C)	> 20	min	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1100	MPa	ISO 527-2/1
Tensile Stress (Yield)	25.0	MPa	ISO 527-2/50
Tensile Strain (Break)	> 600	%	ISO 527-2
Extrusion	Nominal Value	Unit	

Cylinder Zone 1 Temp.	190 - 210	°C
Cylinder Zone 2 Temp.	190 - 210	°C
Cylinder Zone 3 Temp.	190 - 210	°C
Cylinder Zone 4 Temp.	190 - 210	°C
Cylinder Zone 5 Temp.	190 - 210	°C
Melt Temperature	200 - 220	°C
Die Temperature	200 - 210	°C

#### Extrusion instructions

Head: 200 to 210°C

#### NOTE

- |    |                         |
|----|-------------------------|
| 1. | Compound, ISO 1872-2    |
| 2. | 9.2 bar                 |
| 3. | Test pipe 250 mm, SDR11 |
| 4. | EN 728                  |

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#### Recommended distributors for this material

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