

BorSafe™ HE3490-LS

Polyethylene | Black PE100 High Density Polyethylene compound for pressure pipes

DESCRIPTION

BorSafe HE3490-LS is a bimodal polyethylene compound produced by the advanced Borstar technology. The product is a high-density polyethylene compound in pellet form and contains a combination of stabilizers and carbon black to ensure reliable long-term stability and UV resistance. BorSafe HE3490-LS is classified as an MRS 10.0 material (PE100).

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Density	960	kg/m ³	ISO 1183
Melt flow rate (190 °C/5 kg)	0.25	g/10 min	ISO 1133-1
Tensile modulus (1 mm/min)	1100	MPa	ISO 527-2
Tensile stress at yield (50 mm/min)	25	MPa	ISO 527-2
Tensile strain at break	>600	%	ISO 527-2
Carbon black dispersion	≤3	-	ISO 18553
Resistance to slow crack growth (9.2 bar, 80 °C)	>1000	h	ISO 13479
Resistance to rapid crack propagation (S4 test, Pc at 0 °C, test pipe 250 mm, SDR11)	≥10	bar	ISO 13477
Oxidation induction time (210 °C)	≥20	min	ISO 11357-6
Carbon black content	2.0 - 2.5	%	ISO 6964

NOTES / TEST CONDITIONS

* Data should not be used for specification work.

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APPLICATIONS

Cable conduit pipes • Irrigation pipes • District heating • Pressure sewerage • Drinking water • Sea outfall • Gas distribution • Sheets and profiles • Industrial applications • Waste water discharge
BorSafe HE3490-LS is recommended for pressure pipe systems in the application fields above.

SPECIFICATIONS

EN 12201 • ISO 4437 • EN 1555 • EN ISO 15494 • ISO 4427

The product is a high-density butene copolymer compound with good resistance to slow crack growth and rapid crack propagation. Thanks to its molecular structure, it offers outstanding extrudability and good melt strength, supporting problem-free extrusion to tight tolerances.

PROCESSING CONDITIONS

PROCESSING SETTING	TYPICAL VALUE/RANGE
Cylinder temperature	190-210 °C
Head temperature	200-210 °C
Die temperature	200-210 °C
Melt temperature	200-220 °C

The actual conditions will depend on the type of equipment used. Specific recommendations can be determined only when the application and equipment type are known. For normal conditions and applications, preheating and drying are suggested. Please contact your local Borealis representative for particulars.

STORAGE & HANDLING

BorSafe HE3490-LS shall be stored indoors below 50 °C in unopened original packaging in a clean and dry environment. Proper stock rotation using first-in, first-out is recommended. Under these conditions the material can safely be stored for up to 2 years after production. Caution should be taken regarding moisture; after longer storage periods, measuring moisture before processing is recommended.

OTHER INFORMATION

Product compliance documents: Latest PSIS, SDS and product liability documents: www.borealisgroup.com. Sustainability: DfC/DfR conserve resources and reduce lifecycle impact. DfR supports recycling and material performance. More: borealisgroup.com / borealiseverminds.com.
Regional Availability: Europe • North America • South America. Contact a Borealis Sales Representative.

DISCLAIMER

The product(s) are not intended for medical, pharmaceutical or healthcare applications and Borealis does not support such use. Information is believed accurate and reliable as of publication, but Borealis assumes no liability for accuracy or completeness and gives no warranties beyond this description, including merchantability or fitness for a particular purpose. The customer must inspect and test the products for suitability and is responsible for appropriate, safe and legal use, processing and handling. No liability is accepted for use with other products/materials. Unless specifically provided in the stated test methods, this information relates exclusively to these products when not used with other material.