



Polyethylene Borstar[®] HE3494-LS

Blue High Density Polyethylene Compound for Pressure Pipes for Drinking Water

Description

Borstar HE3494-LS is a blue, high density polyethylene compound classified as a MRS 10.0 material (PE100) produced with the advanced Borstar technology. It includes a combination of pigments and stabilisers to ensure excellent long-term thermal stability and UV-resistance. It also shows excellent resistance to rapid crack propagation and slow crack growth.

Applications

Borstar HE3494-LS is recommended for pressure pipe systems in the application fields of drinking water and gives good processing properties and low sagging in thick-walled pipes.

Physical Properties

		Typical Value*	Unit	Test Method
Density	(Compound)	951	kg/m ³	ISO 1183
Melt Flow Rate	(190°C/5.0 kg)	0.30	g/10 min	ISO 1133
Tensile Stress at Yield	(50 mm/min)	25	MPa	ISO 527-2
Tensile Modulus	(1 mm/min)	1100	MPa	ISO 527-2
Elongation at Break		> 600	%	ISO 527-2
Thermal Stability	(200°C)	> 20	min	EN 728
Resistance to Slow Crack Growth	(9.2 bar, 80°C)	> 1000	h	ISO 13479
Resistance to Rapid Crack Propagation		> 10	bar	ISO 13477

(Pc at 0°C, S4 test / pipe size 250 mm SDR11)

* Data should not be used for specification work.

Processing guidelines

The actual extrusion conditions will depend on the type of equipment used. They will also depend on size and wall thickness of the pipe produced. The following conditions may be used as a guideline when starting up the extruder.

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. Please contact your local Borealis representative for such particulars.

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Storage and handling

HE3494-LS should be stored in dry conditions at temperatures 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 the physical properties of the product.

Safety

Borstar HE3494-LS is not classified as dangerous preparation.

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

For the manufacture of water pipes only clean reprocessable material generated from the manufacturer's own production of pipes may be used if it is derived from the same compound as used for the relevant production and if approved in the relevant standard or specification.

Waste material may be recycled into the manufacture of other products provided that the manufacturer respects the appropriate product specifications and regulations.

A Safety Data Sheet is available on request. Please contact your Borealis representative for more details on various aspects of safety, recovery and disposal of the product.

Related documents

The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.

Recovery and disposal of Polyolefins
Information on Emissions from Processing and Fires
Safety Data Sheet, SDS
Environmental Fact Sheet

Liability Statements on:

- Compliance to Regulations for Drinking Water Pipes
- Chemicals and Certain Regulations and Norms



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