

PRODUCT DATA SHEET

POLYETHYLENE

Borstar® HE3310

BLACK HIGH DENSITY FOR NON-PRESSURE PIPE APPLICATIONS

DESCRIPTION

HE3310 is a black high density polyethylene for non-pressure pipe applications. It has a unique molecular structure that provides excellent stress crack resistance & stiffness along with outstanding process ability. The compound contains well dispersed carbon black which gives outstanding UV resistance and an optimized stabilization package that provides long term stability.

APPLICATIONS

HE3310 is recommended for solid and structured wall non-pressure pipes (including spiral wound pipes and twin wall corrugated pipes), fittings, chambers, conduit and profile extrusion applications

PHYSICAL PROPERTIES

Property	Typical Value*	Test Method
Density (Compound)	≥ 958kg/m ³	ISO 1183
Melt Flow Rate (190°C/5.0kg)	0.6g/10min	ISO 1133
Flexural Modulus (2mm/min)	1200MPa	ISO 178
Tensile Strain at Break (50mm/min)	600%	ISO 527-2
Tensile Stress at Yield (50mm/min)	>24MPa	ISO 527-2
Tensile Stress at Break (50mm/min)	33MPa	ISO 527-2
Oxidation Induction Time (200 ^o C)	≥ 50mins	ISO 11357-6
Carbon Black Content	≥ 2%	ISO 6964
Carbon Black Dispersion	≤ 3	ISO 18553

*Data should not be used for specification work

PROCESSING GUIDELINES

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

Cylinder	170 - 200°C
Head	190 - 200°C
Die	180 - 190°C

For normal extrusion conditions and applications, we suggest preheating and drying with a maximum preheating temperature of 90°C for at least 1 hour.

Specific recommendations for processing conditions can be determined only when the application and type of equipment are known. Please contact your local Borouge representative for such particulars.

STORAGE

The product should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation.

SAFETY

HE3310 is not classified as a dangerous preparation.

Dust and fines from the product may give a risk for dust explosion. All equipment should be properly earthed. Inhalation of dust may irritate the respiratory system and should be avoided. During processing of the product small amounts of fumes are generated, which require proper ventilation.

A Safety Information Sheet (SIS) is available on request. Please contact your Borouge representative for more details on various aspects of safety, recovery and disposal of the product

RECYCLING

The product is suitable for recycling using modern methods of shredding and cleaning but for pipe applications only if approved in the relevant standard or specification. In-house production waste should be kept clean to facilitate direct recycling.

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.

Borouge makes no warranties which extend beyond the description contained herein. Nothing herein shall constitute any warranty of merchantability or fitness for a particular purpose.

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.

No liability can be accepted in respect of the use of Borouge products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any third party materials.

Mar 2022