

# Polyethylene

## Borstar® HE3460

### BLACK HDPE FOR SPRINKLER PIPE

#### DESCRIPTION

**HE3460** is a black high density polyethylene for sprinkler pipe application.

The combination of high mechanical strength and long term performance makes **HE3460** a good sprinkler pipe material. Well dispersed carbon black gives outstanding UV resistance. Long term stability is ensured by an optimised stabilisation system.

#### PROPERTIES

|                               | Typical Value* | Unit              | Test Method          |
|-------------------------------|----------------|-------------------|----------------------|
| Density (Compound)            | 960            | kg/m <sup>3</sup> | ISO 1183/ISO 1872-2B |
| Melt Flow Rate (190°C/5.0 kg) | 0.7            | g/10 min          | ISO 1133             |
| Carbon black content          | ≥ 2            | %                 | ASTM D 1603          |
| Tensile stress at yield       | >19            | MPa               | ISO/DIS 6259         |
| Elongation at break           | > 600          | %                 | ISO/DIS 6259         |
| Brittleness temperature       | < -70          | °C                | ASTM D 746           |
| Thermal stability (200°C)     | 20             | min               | EN 728               |

\* 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 | 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 minimum 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 AND HANDLING**

The product should be stored in dry conditions at temperatures below 60°C and protected from UV-light.

Improper storage can initiate degradation.

## **SAFETY**

**HE3460** 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.

## **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.

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

## **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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