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POLYETHYLENE

BorSafe™ ME3441

YELLOW MEDIUM DENSITY BIMODAL PE80 POLYETHYLENE FOR PRESSURE PIPE

DESCRIPTION

BorSafe™

ME3441 is a yellow, bimodal medium density polyethylene classified as a MRS 8.0 material (PE80), with an optimum balance between flexibility and strength, produced using the advanced Borstar® technology. Long-term stability is ensured by an optimized stabilization system.

APPLICATIONS

BorSafe™

ME3441 is recommended for gas pressure pipe systems where flexibility and coilability is of importance. It also shows excellent resistance to rapid crack propagation and slow crack growth. Attributed to the molecular structure, it gives outstanding extrudability, compared to conventional PE80 products.

PHYSICAL PROPERTIES

Property	Typical Value*	Test Method
Density (Compound)	944kg/m ³	ISO 1183
Melt Flow Rate (190°C/5.0kg)	0.80g/10min	ISO 1133
Tensile Modulus (1mm/min)	800MPa	ISO 527
Tensile Strain at Break (50mm/min)	>600%	ISO 527-2
Tensile Stress at Yield (50mm/min)	19MPa	ISO 527-2
Pigment Dispersion Oxidation	≤3	ISO 18553
Induction Time (210°C)	≥20mins	ISO 11357-6
Resistance to Slow Crack Growth (8.0bar, 80°C)	>5000hrs	ISO 13479

+Pc at 0°C, test pipe 250mm SDR11

*Data should not be used for specification work

PROCESSING GUIDELINES

Extrusion

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 guide when starting up the extruder:

Cylinder	190 – 210°C
	200 – 210°C
Head	200 – 210°C
Die	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 Chemicals Plus representative for such particulars.



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STORAGE

BorSafe™ ME3441 should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation, which results in odor generation and can have negative effects on the physical properties of the product.

Expected shelf life at proper storage conditions is 3 years from the date of production.

More information on storage can be found in Safety Information Sheet (SIS) for this product.

SAFETY

The product is not classified as a hazardous 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.

Please see our Safety Information Sheet (SIS) for details on various aspects of safety, recovery and disposal of the product, for more information contact your Chemicals Plus representative.

RECYCLING

The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.

RELATED DOCUMENTS

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

Safety Information Sheet, SIS

Liability statements on:

- Statement on chemical, regulations and standards

STANDARDS

Chemicals Plus is certified to various ISO standards, please refer to www.chemicals-plus.com for more information.

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.

Chemicals Plus 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.

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