



Polyethylene

Borcoat™ ME3000FC

Polyethylene compound for Steel Pipe Coating

Description

Borcoat ME3000FC is a maleic anhydride grafted polyethylene compound.

It includes a combination of pigments and stabilisers to ensure long-term thermal stability. The product is supplied as pellets for melt extrusion.

The product is coloured yellow.

Applications

Borcoat ME3000FC is recommended for melt extrusion of field joint coatings, repair patches and for hot applied tapes/sheets on buried or submerged pipelines.

Steel Pipe Coating

Specifications

Borcoat ME3000FC is intended to fulfil the following international standard:

ISO 21809-3, FJC type 5E

Special Features

Borcoat ME3000FC is a reactive top coat polyethylene compound that can be hot applied directly onto an epoxy pre-coated pipe or as a hot applied tape/sheet together with the powder adhesive Borcoat™ ME0433 .

Physical Properties

Property	Typical Value	Test Method
<small>Data should not be used for specification work</small>		
Density (Compound)	934 kg/m ³	ISO 1183-1, Method A
Melt Flow Rate (190 °C/2,16 kg)	4,0 g/10min	ISO 1133
Tensile Strain at Break (50 mm/min) (23 °C)	> 600 %	ISO 527-2
Tensile Strain at Break (50 mm/min) (-45 °C)	> 100 %	ISO 527-2
Tensile Stress at Yield (50 mm/min) (23 °C)	13 MPa	ISO 527-2
Tensile Stress at Break (50 mm/min) (23 °C)	16 MPa	ISO 527-2
Melting temperature (DSC)	121 °C	ISO 11357-3
Oxidation Induction Time (210 °C),	> 30 min	ISO 11357-6
Vicat softening temperature A50, (10 N)	105 °C	ISO 306
Brittleness temperature	< -80 °C	ASTM D 746
Environmental Stress Crack Resistance (50 °C, Igepal 10 % _v , F0)	> 5.000 h	ASTM D 1693-A
Hardness, Shore D (1 s)	53	ISO 868
Moisture	< 500 ppm	ISO 15512
Peel strength (23 °C)	> 200 N/cm	EN ISO 21809-1 (Annex C)
Peel strength (80 °C)	> 50 N/cm	EN ISO 21809-1 (Annex C)

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Electrical Properties

Property	Typical Value	Test Method
Volume Resistivity	1 · 10 ¹⁶ Ωcm	ASTM D 257
Dielectric Strength	> 25 kV/mm	ASTM D 149

Data should not be used for specification work

Processing Techniques

Pellets can be applied by flat die or crosshead extrusion.

The actual extrusion conditions will depend on the type of equipment used.

Cylinder	170 - 200 °C
Head	200 - 210 °C
Die	200 - 210 °C
Melt temperature	190 - 200 °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.

Packaging

Package: 25 kg Bags

Storage

Borcoat ME3000FC 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 this product. Following afore-mentioned conditions the material can safely be stored for a period of up to 3 years after production. However, caution shall be taken regarding the moisture level. It is recommended to measure the moisture after longer storage periods prior to processing.

Safety

The product is not classified as harmful to humans or the environment according to DPD 1999/45/EC or CLP regulation (EU) No. 1272/2008.

Please see our "Safety data sheet" / "Product safety information sheet" for details on various aspects of safety, recovery and disposal of the product. For more information, contact your Borealis representative.

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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.

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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 migration
"Safety data sheet" / "Product safety information sheet"

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.

Borealis 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 any Borealis product in conjunction with any other products and/or materials. The information contained herein relates exclusively to our products when not used in conjunction with any other material unless as specifically provided for in the test methods stated above.