



Polypropylene Borcoat™ BB5000FC

Polypropylene compound for Steel Pipe Coating

Description

Borcoat BB5000FC is a maleic anhydride grafted polypropylene compound.

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

The product is coloured blue.

Applications

Borcoat BB5000FC 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 BB5000FC is intended to fulfil the following international standard:

ISO 21809-3, FJC type 5B

Special Features

Borcoat BB5000FC is a reactive polypropylene 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 BB127E or Borcoat BB122E-LT-P .

Physical Properties

Property	Typical Value	Test Method
	Data should not be used for specification work	
Density (Compound)	910 kg/m ³	ISO 1183-1, Method A
Melt Flow Rate (230 °C/2,16 kg)	4,5 g/10min	ISO 1133
Tensile Modulus (1 mm/min)	800 MPa	ISO 527-2
Tensile Strain at Break (50 mm/min)	> 400 %	ISO 527-2
Tensile Stress at Yield (50 mm/min)	20 MPa	ISO 527-2
Melting temperature (DSC)	160 °C	ISO 11357-3
Oxidation Induction Time (220 °C),	> 30 min	ISO 11357-6
Vicat softening temperature A50, (10 N)	120 °C	ISO 306
Brittleness temperature	< -35 °C	ASTM D 746
Charpy Impact Strength, notched (23 °C)	13 kJ/m ²	ISO 179/1eA
Charpy Impact Strength, notched (-20 °C)	4 kJ/m ²	ISO 179/1eA
Hardness, Shore D (1 s)	60	ISO 868
Moisture	< 500 ppm	ISO 15512
Peel strength (23 °C)	> 250 N/cm	EN ISO 21809-1 (Annex C)
Peel strength (110 °C)	> 40 N/cm	EN ISO 21809-1 (Annex C)

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Processing Techniques

Pellets can be applied by flat die or crosshead extrusion. The actual conditions will depend on the type of equipment used.

Extrusion

Cylinder	200 - 220 °C
Head	210 - 220 °C
Die	210 - 220 °C
Melt temperature	220 - 240 °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 BB5000FC 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 dangerous.

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.

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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Related Documents

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

Recovery and disposal of polyolefins
Information on emissions from processing and fires
"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.