



High Density Polyethylene for Steel Pipe Coating

Description

Borcoat HE7405 is a black coloured compound supplied in powder form.

This product is thermal, as well as UV-stabilized.

Applications

Borcoat HE7405 is recommended to be used as a rough coat on PE coatings, or as repair of small damaged areas of PE coating systems used in:

Steel Pipe Coating

Special Features

Borcoat HE7405 is applied directly after the top coat application and before cooling of the coated pipe. This provides a coating with increased surface friction and roughness compared to normal PE coatings. Typical applications include:

PE coated pipes on which a concrete weight coating is applied

Pipes installed in steep terrain to increase friction with the surrounding ground

Increased safety when people are walking on pipes during handling and loading operations

Offshore pipes without concrete weight coating to increase the grip in the caterpillar clamps during laying operations

Physical Properties

Property	Typical Value Data should not be used for	Test Method
Density (Compound)	944 kg/m³	ISO 1183-1, Method A
Melt Flow Rate (190 °C/2,16 kg)	8 g/10min	ISO 1133-1, Method B
Melt Flow Rate (190 °C/5 kg)	30 g/10min	ISO 1133-1, Method B
Melting temperature	130 °C	ISO 11357-3
Oxidation Induction Time (210 °C),	> 20 min	ISO 11357-6
Vicat softening temperature A50, (9,8 N)	108 °C	ISO 306
Hardness, Shore D (1 s)	58	ISO 868

Application Related Properties

Property	Typical Value Data should not be used for s	Test Method specification work	
Main particle size	212 - 500 µm	ASTM D 1921	

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Processing Techniques

Borcoat HE7405 is a powdered material and is applied directly on top of still molten PE top coat in the coating process before quenching in the cooling unit. There are a number of methods used to apply the powder such as electrostatic spray, using a shaker plate mechanism or a belt dosing unit with a funnel-shaped outlet. Other methods may also be suitable. The application rate and consistency is dependent on the type of application equipment, coating unit design, dimensions of the steel pipe, temperature of the coated pipe and the line speed. For side extrusion (wrapping), an additional light-weight roller reduces the amount of loose particles. Some experimental design must be done to have a suitable set up. Please contact your Borealis representative for more details.

Storage

Borcoat HE7405 shall be stored indoors below 50°C in unopened original packaging in clean and dry environment. It is recommended to ensure proper stock rotation by using first in – first out principle. 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 CLP regulation (EU) No. 1272/2008. According to Article 31 of Regulation (EC) 1907/2006 there is no legal requirement to provide a SDS for this product. Existing Product safety information sheet is valid.

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.

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 emissions from processing and fires "Safety data sheet" / "Product safety information sheet"

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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.

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