

PRODUCT DATA SHEET

POLYETHYLENE

ANTEO™ FK1510

BORSTAR® BIMODAL TERPOLYMER LLDPE FOR HIGH PERFORMANCE FLEXIBLE PACKAGING

DESCRIPTION

Anteo™ FK1510 is produced using the proprietary **Borstar®** bimodal terpolymer technology combining outstanding sealing performance with superior dart drop impact, easy processability, good optics and better stiffness/ toughness balance. Film made with **Anteo™ FK1510** exhibits unique combination of higher dart drop impact, with better stiffness/ toughness balance, low seal initiation temperature (SIT), high hot tack force and excellent puncture and tear properties. With excellent dart drop impact, film made from **Anteo™ FK1510** is durable and suitable for heavy duty use. **Anteo™ FK1510** used in combination with **Borstar® PE / BorShape™ PE / LDPE / PP** products offer best in class high performance transparent flexible packaging solution with potential for down gauging. **Anteo™ FK1510** contains Antioxidant and processing Aid (PPA).

CAS-No. 60785-11-7

APPLICATIONS

Heavy duty shipping sacks (HDSS)

Lamination

Stand up Pouches

Food Packaging

Multilayer Packaging Film

Stretch Cling Film

Stretch Hood

Frozen Food Packaging

Form Fill Seal (FFS)

Transparent Film

Impact modifier

KEY FEATURES

Easy process ability

Excellent Mechanical Strength

Excellent Low Temperature Performance

Superior Puncture Resistance

Excellent Organoleptic Properties

Balanced Tear Strength

Good Optics

Outstanding Seal Performance (low SIT, High Hot Tack Force and wide sealing Window)

PHYSICAL PROPERTIES

Property	Typical Value*	Test Method
Density	915 kg/m ³	ASTM D 792
Melt Flow Rate (190°C/2.16kg)	1.0 g/10min	ASTM D1238
Melting Temperature	120 °C	ISO 11357/03
Vicat Softening Point	100 °C	ASTM D 1525

* Typical properties and data should not be used for specification work

FILM PROPERTIES

Anteo™ FK1510 film properties are measured on 40 micron blown film produced on a lab scale extruder with processing conditions: BUR = 2.5:1, FLH = 3 DD, Die gap =1.8mm

Property	Typical Value*	Test Method
Tensile Modulus (1 % Secant) (MD/TD)	170/176 MPa	ASTM D 882
Elmendorf tear strength (MD/TD)	4.7/6.3 N	ISO6383-2
Dart Drop	>1300 g	ASTM D 1709/A
Haze**	6%	ASTM1003
Gloss (20°) **	50	ASTM D 2457
Puncture Resistance, force	44 N	ASTM D 5748
Puncture Resistance, energy	3.0 J	ASTM D 5748

* Typical properties and data should not be used for specification work

** Blend with 10% LDPE.

PROCESSING CONDITIONS

Anteo™ FK1510 can be processed in most types of blown film equipment such as LDPE, LLDPE or HDPE extruders. **Anteo™ FK1510** is well suited for co-extrusion in combination with Borstar® PE/ BorShape™ PE / LDPE / PP products.

Recommended extrusion temperature is 180 - 210°C. Die gap of 1.4 - 2.2 mm will give the best balance between extruder pressure and physical properties in the film. **Anteo™ FK1510** enables energy saving by processing at lower temperature and motor load with excellent bubble stability.

To boost optical properties of film made with **Anteo™ FK1510**, it is recommended to blend with minimum 5% LDPE.

FOOD CONTACT REGULATIONS

Anteo™ FK1510 fulfils the food contact regulations in most countries. If required, contact your Borouge representative for a certificate.

STORAGE

This product 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 physical properties of this product.

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

SAFETY

The product is not classified as a hazardous mixture.

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 Borouge 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
Statement on chemicals, regulations and standards
Statement on compliance to regulations for drinking water pipes

STANDARDS

Borouge is certified to various ISO standards, please refer to Borouge.com for more information.

DISCLAIMER

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.

Borouge 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 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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Anteo™ is a trademark of the Borealis group.

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