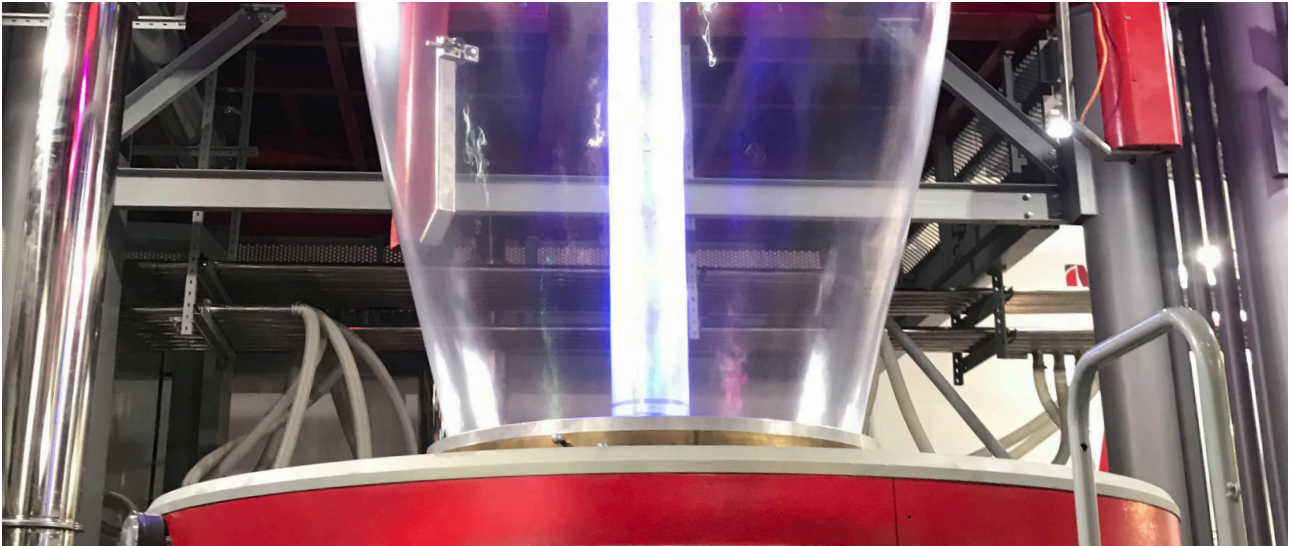


PRODUCT NEWS

ANBIQ™ FM1810/FM1818 ENHANCED LLDPE INNOVATIVE PACKAGING



Anbiq™ FM1810 and FM1818 have high benefit-to cost-ratio with outstanding optical film clarity and gloss.

ANBIQ™ FM1810/FM1818 – THE ENHANCED INGREDIENT FOR EXCELLENT BALANCE OF CLARITY, STRENGTH AND OPTICS

Anbiq™ FM1810/FM1818 is a Linear Low-Density Polyethylene (LLDPE) resin produced using the proprietary Borstar® bimodal technology. It is an enhanced LLDPE, providing high clarity, strength and optical properties, designed by unique combination of smart catalyst design and a superior two-reactor-system process and co-monomer distribution.

Anbiq™ FM1810/FM1818, containing Antioxidant and Polymer Processing Aid (PPA), is designed for easy processing with excellent optical properties. It offers good impact strength and sealing performance on conventional blown film.

BOROUGE OFFERS THE TOTAL SOLUTION FOR FILM STRUCTURES AND SAFETY

Anbiq™ FM1810/FM1818 can be processed by most types of blown film equipment such as LDPE, LLDPE or High Density Polyethylene (HDPE) extruders. With a minimum 5% LDPE blended together, its optical properties will be boosted. Anbiq™ FM1810/FM1818 enables energy saving by processing at lower temperature and motor load with excellent bubble stability.

Anbiq™ FM1810/FM1818 fulfils food contact regulations in most countries. In terms of storage, it should be stored in dry conditions at temperatures below 50°C, protected from UV light. Anbiq™ FM1810/FM1818 is not classified as a hazardous mixture but dust and fine particles from the product carry a risk of dust explosion. Anbiq™ FM1810/FM1818 is suitable for recycling using modern methods of shredding and cleaning.

ANBIQ™ FM1810/FM1818 SERVES VARIOUS APPLICATIONS

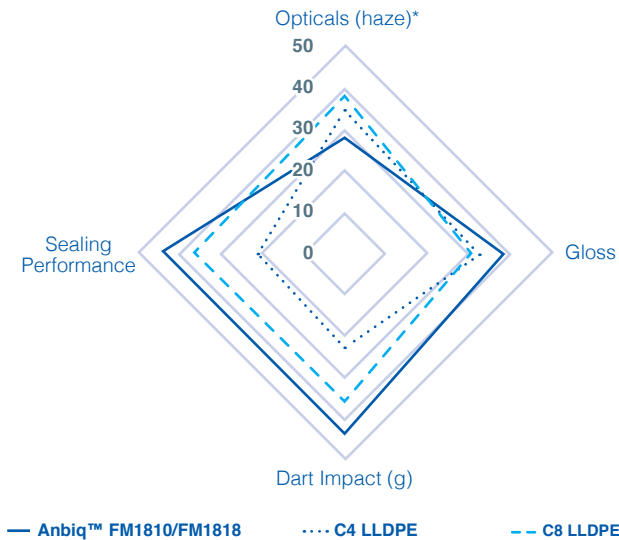
- Lamination
- Liquid Packaging
- Agriculture Film
- Food Packaging
- Impact Modifier
- Multilayer Packaging Film

BENEFITS

- Easy processability, high output rates
- Good optical properties
- Excellent organoleptic properties
- Good impact strength
- Optimised seal performance
- Low Seal Initiation Temperature (SIT); wide sealing window

THE PERFECT BALANCE OF CLARITY AND STRENGTH FOR VERSATILITY IN MEETING DIVERSE FILM REQUIREMENTS

Anbiq™ FM1810/FM1818 Benchmarks



*Opticals (Haze) – Lower haze means better clarity

TECHNICAL OVERVIEW

Anbiq™ FM1810/FM1818 film properties are measured on 40 micron blown film produced at lab scale extruder with processing conditions: BUR = 2.5:1, FLH = 3 DD, Die gap = 1.8mm.

Anbiq™ FM1810 additivation consists of AO and PPA whereas Anbiq™ FM1818 includes AO, PPA, SA and AB.

Properties	Typical Value	Unit	Test Method
Density	918	kg/m ³	ISO1183
Melt Flow Rate MFR (190°C/2.16kg)	1.1	g/10min	ISO1133
Melting Temperature	122	°C	ISO 11357/03
Tensile Strength at Break – MD/TD	45/35	MPa	ISO 527-3
Elongation at Break – MD/TD	650/700	%	ISO 527-3
Tensile Strength at Yield – TD	15	MPa	ISO 527-3
Tensile Modulus (1% Secant) – MD/TD	210/240	MPa	ASTM D 882
Elmendorf Tear Strength – MD/TD	100/650	g	ASTM D 1922
Dart Drop Impact	>200	g	ASTM D 1709/A
Haze	8.5	%	ASTM 1003
Gloss (60°)	100	–	ISO 2813
Puncture Resistance, force	30	N	ASTM D 5748
Puncture Resistance, energy	1.0	J	ASTM D 5748

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

** All films were blended with 10% LDPE

About Borouge A joint venture between ADNOC and Borealis, Borouge is a leading petrochemicals company that provides innovative plastics solutions for the energy, infrastructure, mobility, packaging, healthcare and agriculture industries. With 4.5 million tonnes of annual capacity, Borouge has the world's largest integrated polyolefin complex, with the ambition to double its current capacity by 2030.

Disclaimer The information contained herein is to our knowledge accurate and reliable as of the date of publication. Borealis and Borouge extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the consequences of its use or for any printing errors. It is the customer's responsibility to inspect and test our products in order to satisfy himself as to the suitability of the products for the customer's particular purpose. The customer is also responsible for the appropriate, safe and legal use, processing and handling of our products. Nothing herein shall constitute any warranty (express or implied, of merchantability, fitness for a particular purpose, compliance with performance indicators, conformity to samples or models, non-infringement or otherwise), nor is protection from any law or patent to be inferred. Insofar as products supplied by Borealis and Borouge are used in conjunction with third-party materials, it is the responsibility of the customer to obtain all necessary information relating to the third-party materials and ensure that Borealis and Borouge products, when used together with these materials, are suitable for the customer's particular purpose. No liability can be accepted in respect of the use of Borealis and Borouge products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any third-party materials.

Borouge Pte Ltd

One George Street #18-01 Singapore 049145
 Tel: +65 6275 4100 Fax: +65 6377 1233 Email: info@borouge.com