# D ackaging 

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Luxury Boxes play Voxes

Flex Films at Pack Expo Las Vegas with foil replacement film - Stand N-9115

## Flex Films launches F-UHB-M - a <br> metallic polyester ultra-high barrier film

Flex Films, the global film manufacturing arm of flexible packaging giant UFlex, has launched its new avant-garde patented BOPET high barrier film F-UHB-M, designed to replace aluminum foil in flexible packaging applications. According to the press release datelined Kentucky, USA, 23 September 2021, the new film will be manufactured in the Flex Films Kentucky plant and supplied worldwide.

## Naresh Khanna

FUHB-M addresses the converting industry's challenges that have relied on aluminum foil for packaging for a long time. Amongst foil's limitations are its availability, high material cost, weak integrity, propensity for in-use pinhole formation, and difficulty in recycling.

With its new specially formulated bi-axially oriented polyester (BOPET) structure, F-UHB-M provides superior gas and water barrier - achieving one of the lowest oxygen and moisture barrier values ( $0.1 \mathrm{cc} / \mathrm{m} 2$-day \& $0.1 \mathrm{gm} / \mathrm{m} 2$-day, respectively). The new structure's industry-leading metal adhesion of 1200 $\mathrm{gm} / 25 \mathrm{~mm}$ aids improvement and extension of product shelf-life. Barrier performance is retained after incorporating F-UHB-M into a multi-layer laminate structure, demonstrating excellent handling, machinability, and resistance to pinhole formation.
Flex Films' new film will be shown to industry visitors at Pack Expo 2021, at the Las Vegas Convention Centre from 27 to 29 September 2021, at the Flex Films stand N-9115. The new F-UHB-M film has a thickness of 12 microns. Its coating technology and a very high optical density are compatible with a wide range of inks and adhesives. In addition, it has better machinability and handling during processing. Flex says it comes with good flex crack resistance and has $20 \%$ increased puncture resistance vs BOPET grades.
Furthermore, an advanced in-line inspection

F-UHB-M
HIGH BARRIER METALLIZED FILM
FILM STRUCTURE


Flex Films' F-UHB-M film to be introduced at Pack Expo Las Vegas 27 to 29 September at its stand N-9115 Image Flex Films

## FLEXIBLE PACKAGING

mechanism in its manufacture ensures consistency in barrier properties and far less pinhole density than aluminum foils, making it less susceptible to gas and water vapor leakages. In addition, it generates less scrap during production. These attributes give the new BOPET film a robust competitive edge making it suitable for flexible packaging applications dominated by a laminate comprising of aluminum foil.

## I. From 4-ply to a more straightforward 3-ply laminate structure

F-UHB-M offers multiple benefits ranging from cost-efficiency, a higher sustainability quotient, and efficient use in logistics and eCommerce. For example, one of the biggest challenges that the packaging film industry faces today is reducing food wastage through enhanced shelf-life of food products and reducing packaging material consumption through laminate rationalization.

The F-UHB-M laminate can help the converting industry move from a 'difficult to recycle 4-ply laminate structure with aluminum foil' to a 'much simpler, easily recyclable 3-ply laminate structure. Moreover, it can be done without compromising barrier performance, thus helping the customer achieve reduced laminate weight and lower cost with a minimized carbon footprint.

While the new high barrier film's protective oxygen and moisture barrier help lock in the flavor and aroma of food products for longer than products packaged in aluminum foils, the high metal bond strength ensures against delamination. This makes the laminate more secure and the product safer while retaining its quality. These advantages can help eCommerce logistics over long distances without damaging consumer food products.

The materials cost of F-UHB-M is less impacted by price fluctuations than aluminum foil, allowing better cost forecasting. Thus, with a better yield per unit area, F-UHB-M will likely prove to be a highly cost-effective film.
The FDA-compliant film also suits applications in medical packaging, dried and powdered items such as dried meats, coffee, yeast, snacks, and nuts. In addition, Flex's new film can work for energy drinks packaging, vacuum insulated panels, bag-in-box, and several other applications.

Talking about the benefits of the new film, Vijay Yadav, Business head, Flexfilms USA, said, "While developing the high barrier F-UHB-M, priority was given to upscale the barrier properties matching that of aluminum foil to deliver the best packaging experience to our customers. In addition, our teams worked extensively on creating a high valueadded film with numerous benefits so that our converting partners gain from reduced manufacturing cost, better performance, and achieve economies of scale while going sustainable with their packaging, at the same time."

Anantshree Chaturvedi, vice chairman and CEO, Flex Films, explains, "We are in the business of offering solutions to challenges that packaging faces and those that complement evolving market needs. . . . . The F-UHB-M film provides the enhanced safety parameters, the fewer complexities that convertors want, and the greener packaging that consumers seek."

