



tomorrow's  
performance  
today

## Hygiene compression packaging films with sustainability benefits that can help maintain performance



Incorporates  
recycled content



Film  
integrity



Optical  
properties



Reduced film  
thickness

### Challenge:

**Help contribute to a circular economy by developing hygiene compression packaging films with sustainability benefits, while helping to maintain properties**

Plastik SpA, a leading polyethylene (PE) film converter based in Italy, wanted to develop hygiene compression packaging films with sustainability benefits in response to consumer demand and brand owner commitments. In developing a solution, the company was focused on maintaining the performance of the films.

“Consumers are demanding solutions with sustainability benefits for packaging hygiene products,” said Mr. Gianangelo Cattaneo, President, Plastik SpA. “As a converter, we can help the value chain develop hygiene compression packaging solutions with sustainability benefits that are capable of maintaining performance and processability. Options include downgauging the film to reduce material use, incorporating Post Consumer Recycled (PCR) content and developing mono-material solutions that can be recycled\*.”

### Solution:

**One solution significantly reduces film thickness, a second includes 30% PCR content; both include Exceed™ XP and Enable™ polymer content which help deliver high integrity films**

Plastik worked with GDM, a manufacturer of converting machines and packaging for disposable hygiene products, and ExxonMobil to apply their respective converting, machinery, and polymer expertise to collaborate in testing two hygiene compression packaging film solutions. Both utilized Exceed™ XP and Enable™ performance polymers to boost performance: one with significantly reduced film thickness, and the second incorporating 30% PCR.

Using Exceed™ XP 8358ML helps provide high integrity films with outstanding toughness and puncture resistance. Due to its higher density, Enable™ 4002MC delivers tough, stiff films for better handling, especially at reduced thicknesses. The use of HDPE can also offer stiffness, and a higher tensile yield delivers resistance to deformation during and after packaging. The formulations can also allow excellent, fast sealing and high machine output.

\*Recyclable in communities with programs and facilities in place that collect and recycle plastic film.

# Results:

## Two high-integrity hygiene compression packaging films that deliver sustainability benefits and are easy to process

Thanks to a full value chain collaboration, two mono-material PE films, which can be recycled\* were developed. Performance PE polymers from ExxonMobil help maintain packaging performance and processability.

### 'Invisible' hygiene packaging films

The first solution, termed 'invisible' by Plastik SpA, is an ultra-thin hygiene compression packaging film. Film thickness was downgauged by over 40% from 35 micron to 20 micron.

### Hygiene packaging films with PCR content

The second solution incorporates 30% PCR (post-consumer recycled) content while the mechanical properties of the film are maintained. Performance PE polymers serve as a blending partner allowing PCR content to be incorporated in demanding applications, which can support major brand owner commitments towards the incorporation of recycled content in their packaging.

The hygiene compression packaging film formulations offer:

- High integrity films that can help prevent breakage, protect products and reduce waste.
- Good printability and optical properties, allowing brand owners to promote products effectively
- No operational changes to the end user's machine settings.
- Packaging efficiency for high output.

"The project with ExxonMobil was designed to create compression packaging for the sanitary hygiene sector that delivers sustainability benefits while maintaining the necessary converting and in-use performance," said Mrs. Laura Cattaneo, CEO, Plastik SpA. "An idea was born from the need to use less plastic by reducing packaging thicknesses without affecting the mechanical characteristics of the film. This was the inspiration for our 'invisible' compression packaging. The collaboration expanded to include GDM which successfully tested the material. This was only possible thanks to the openness of the collaborating partners and their drive to continue innovating in response to market needs.

These two solutions are commercially available and have been well received by the market. Many value chain customers are seeing the value of incorporating recycled content.

## Why ExxonMobil PE? Why today?

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What some might view as solutions that will only happen in the future, ExxonMobil PE is making possible today – through our innovative and reliable products, collaborative approach, technology leadership and support, and our unmatched global supply and resources. Learn more about how we're helping our customers create solutions with sustainability benefits. Why wait for tomorrow to advance your business today? Contact your ExxonMobil PE representative and begin experiencing tomorrow's performance today in flexible packaging.

\*Recyclable in communities with programs and facilities in place that collect and recycle plastic film.

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