



Devising a Sustainable Solution for Industrial Stretch Film—Key Factors to Consider

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Introduction

Undoubtedly as environmental considerations have taken centre stage in packaging, recycling and the incorporation of recycled material into new products have received particular attention. This is perhaps because they are two of the most visible ways in which a business can demonstrate its sustainability commitments.

However, true sustainability in packaging demands a comprehensive, product focused approach that addresses circularity and a [reduction of carbon footprint](#) through improved recyclability, light weighting, and the incorporation of [recycled content](#), ensuring all aspects of production and use align with environmental goals.

This White Paper explores key considerations for companies aiming to balance sustainability with the performance and essential attributes of industrial stretch films, outlining Berry's B Circular approach to product development. [B Circular](#) is a testament of Berry's customer promise and ongoing commitment to delivering sustainable solutions that support our customers' goals.

A Holistic Approach to Sustainability in Packaging

While the drive for sustainability is essential, it is important to remember that the primary function of [stretch film](#) is to provide load stability while protecting against dust, dirt, and moisture. The main advantage of a lightweight stretch film is, of course, that it can be used to effectively secure the pallet without compromising on pallet weight. These attributes play a vital role in ensuring the goods' longevity, visibility, and protection throughout transportation and warehousing.

Beyond Recycled Content

While incorporating recycled content is a crucial step forward, Berry maintains a nuanced evaluation of our impact on manufacturing processes and overall film quality.

Because recycled materials have already undergone thermal and mechanical stress, introducing recycled content into stretch film can affect its stretchability, performance, and physical properties, at times leading to a thicker overall film.

Considerations like potential increases in film gauge or the presence of gels affecting stretch capability emphasise the need for a balanced approach. If thicker films and lower stretch levels are likely to affect a company's material reduction targets, or have a negative impact on their film consumption, an alternative means of meeting sustainability targets may be needed.

PRODUCT	THICKNESS	RECOMMENDED STRETCH
Bontite	19µm	300%
Bontite Sustane® Recycled Polymers	19µm	220%

The Lighter Approach

One solution to help companies satisfy their [sustainable packaging](#) commitments is through lightweighting, a key focus in Berry's Impact 2025 sustainability strategy and a vital factor in the push towards lowering natural resource consumption – its relevance also pertaining to the cost of raw material. The ongoing progress in downgauging films and achieving lighter weights through higher stretch, while maintaining performance, is an area in which Berry excels. In a successful case study performed by Berry, our 11.4µm [ultra-high-performance Stratos™ film](#) showed a 44.6% reduction in plastic used per year when compared to a traditional 23µm cast stretch film. This resulted in 28.57% fewer truckloads being shipped per year. Significantly, these lighter weights have been achieved without affecting the ability to provide the required levels of stability, strength, and protection.

Lightweighting also offers crucial cost savings. If the inclusion of recycled content results in a thicker overall film, the higher costs incurred through the need for greater amounts of film may well negate any financial benefit.



Tailored Solutions for Varied Needs



In addition to lightweighting, the choice of film should align with the capabilities of the [stretch wrapper](#). Investing in suitable equipment ensures compatibility, offering improved speeds and efficiencies that contribute to a return on investment.

If a pallet wrapper is not able to achieve high stretch levels, then a thicker film with recycled content could be the ideal solution. Whether virgin or with recycled content, it is essential that the chosen film matches the capabilities of the wrapper.

In recognising that there is no ‘one size fits all’ solution for elective [pallet wrapping](#), it becomes obvious that a machine’s capabilities and the physical properties of the pallet load are paramount when deciding on a stretch wrap solution. Every

application needs to be considered for its specific requirements so that an appropriate solution can be developed. Lightweighting may not always be the right approach.

Loads with sharp edges, for example cardboard layer pads with pronounced corners or the folds at the base of heavy sacks, may require either a thicker film or a lower stretch level to prevent tearing or puncturing during wrapping. In these circumstances, the use of a film containing recycled material could be more suitable.

To understand the specific needs of the application, Berry can work with customers to carry out a comprehensive audit as a key part of the initial sales process. Through this we can get a full picture for each project that allows us to assist in suggesting an appropriate solution, including the specifications of the product, the type of wrapping machine being used, and the speed of application of the film. In this way we can build sustainability into our solution from the start while ensuring all other essential criteria are being met.

A Material Choice

At Berry, recycling and utilising recycled plastics is something we have extensive experience of, with our European businesses having capacity to recycle circa 100,000 tonnes of flexible plastics each year.

As we have already highlighted, one of the major challenges when incorporating recycled content into stretch films is ensuring that the films maintain consistent performance with minimal variation in the stretch. Our technical knowledge and expertise are paramount in our ability to produce high-quality stretch films with recycled content. This is reflected in our Bontite® stretch wrap film that now includes 30% recycled content from our Sustane® range of recycled polymers. Importantly, Sustane recycled polymers are backed by EUCertPlast certification, providing customers with reassurance on the quality and authenticity of recycled content claims.

Berry’s continued recycling investments and developments will allow us to continue to improve the quality and consistency of recycled material, enabling the development of increasingly higher performing films with more recycled content.



Conclusion - Empowering Users to Make an Informed Decision

Sustainability is the main driver for many businesses these days. This is the result not just of legislation such as the Plastics Tax but also consumer and customer demand. By integrating the considerations raised in this White Paper into decision-making processes, companies can navigate the complexities of sustainable [industrial stretch film](#), striking the right balance for both application and overarching sustainability objectives.

For more insights, explore how Berry has approached sustainable packaging solutions at www.berryglobal.com/news

*Results generated by using Gabi Packaging Calculator, to be used for directional environmental performance indicators only.