

# Thermal eCommerce Packaging Solution Provides Sustainable Alternative to EPS

## Consumers demanding more from brands

Environmentalists are calling for a worldwide blanket ban on Expanded Polystyrene (EPS) due to the detrimental effect it has on human health as well as wildlife and aquatic environments. As such, consumers are increasingly expecting the brands they buy from to use sustainable alternatives to lessen their impact on the planet. Environmentally aware businesses such as Sutherlands of Portsoy are turning to packaging experts like Smurfit Kappa to help remove their use of EPS and transform their packaging into more planet-friendly solutions.

**More than a century of Sutherlands of Portsoy**  
**The 110-year-old company is one of the oldest smoked salmon producers in Scotland, supplying high-quality smoked fish both to trade clients and the general public.**

John Farley, Director of Sutherlands of Portsoy, has been a valued customer of Smurfit Kappa for a number of years. John turned to the Smurfit Kappa team in 2021 with the request to develop a new type of thermal eCommerce packaging that could provide an alternative to EPS that is better for the planet and much more in line with Sutherlands of Portsoy's sustainability initiatives. The answer was QuadFresH – a thermally effective and sustainable alternative to EPS to hit the market.

## Why look for an EPS alternative?

**Like Sutherlands of Portsoy, many eCommerce businesses use EPS to transport temperature-sensitive goods such as meat, fish, poultry, and cheese. However, despite its thermal benefits, EPS has several pitfalls, including the use of harmful chemicals in the production of the material.**

**Secondly, although EPS is recyclable, there are no major recycling facilities for it, either in the UK or even worldwide. And, since it is non-biodegradable, EPS tends to lie around for hundreds of years. It is also the primary culprit of ocean pollution; marine animals end up eating it after it has broken up into smaller pieces.**

What's more, although they consist of 80% air and are very lightweight, EPS boxes are rigid. This means they take up a lot of space when being transported – certainly in comparison to corrugated cardboard, which can be shipped flat or folded, resulting in lower transportation costs and emissions.

## A 'cooler' packaging contender

John worked closely with the team at Smurfit Kappa to develop a new format of eCommerce packaging. The new EPS alternative packaging needed to have proven thermal properties to ensure the correct temperature remained constant throughout its transportation journey. This would mean allowing the product inside to remain fresh for up to 36 hours, therefore reaching consumers as intended and reducing the likelihood of product returns.



The packaging also needed to be easy to assemble and pack since large numbers of the product were to be sent out. Where consumers are concerned, it also needed to be as easy as possible to recycle in kerbside recycling schemes for a better, more convenient, and more environmentally conscious customer experience.

## Putting a name to the packaging - QuadFresH

To produce the packaging, a sufficient thermal barrier was built up using 4 additional layers of cardboard. These layers were used to surround the product to maintain the ideal temperature. This unique structural design was also robust enough to withstand transportation, ensuring a quality and fit-for-purpose packaging solution.

**Not only does QuadFresH remove the need for 2500 units of EPS a year, but it also reduces CO<sub>2</sub> (caused by transport emissions) by around 25%. As well as the obvious benefits to food suppliers, the easy-to-recycle QuadFresH packaging provides an enhanced unboxing experience for customers, which in turn promotes brand loyalty and advocacy and ultimately shows customers that suppliers care about the impact their packaging has on the planet.**

## A potential award-winning new form of packaging

Sutherlands of Portsoy's new packaging solution provides a positive brand experience for their customers with feedback including: "The new QuadFresH box is a revelation – not only does the product arrive still chilled, but the segregation of products within the box itself means none of the packaging gets water or other damage. We are delighted." Another customer was quick to describe the packaging as "exceptional – whilst from the outside, it looks like another rigid box, but upon opening, it's an experience". This feedback, in particular, highlights not only the practical benefits of the packaging but also its potential to provide an exciting and worthwhile unboxing experience for customers.

**At Smurfit Kappa, we're proud of our long-standing relationships with customers like John, where we're far more than just packaging suppliers, but packaging partners that can help customers with their evolving packaging needs as their business grows and adapts to changing consumer expectations.**

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