



Smurfit
Westrock

Packaging
Solutions

SUCCESS STORY

Material Optimization Drives \$80,000 in Annual Savings for a Global Technology Manufacturer

Smarter Substrate Selection Reduced Waste, Cut Costs, and Maintained Product Protection



A global technology manufacturer had been shipping kits containing cables and peripherals for server rack applications for years. Each kit was pre-packed using convoluted anti-static PE foam, a relatively expensive material selected early in the program and never revisited.

The problem was that the foam was packed at a fixed volume regardless of what went into each kit. Once the customer's products were placed inside, the foam that remained simply did not fit, leaving workers to remove and discard excess foam at the point of use, an estimated 40% or more of the material on any given day. Beyond the material waste, pre-built kits occupied significant rack storage space and created inefficiencies throughout the pick-and-pack workflow.

The customer called Smurfit Westrock Packaging Solutions to evaluate the packing area and identify process improvements. During that on-site visit, the engineering and sales team identified the foam waste issue and recognized it as a significant, addressable cost driver.

The team proposed transitioning from convoluted anti-static PE foam to anti-static bubble wrap, a lighter, more flexible material that the packers could apply in the exact amount needed for each kit. Because the products were already placed in anti-static clamshells or polybags, the protection requirements stayed well within the range that bubble wrap could reliably provide.



Challenge

A global technology manufacturer was discarding up to 40% of the anti-static foam used to pack server rack kits every day, paying for material that went straight into the trash. With pricing unchanged for years and costs quietly rising, the kitting program needed a fresh look.

Solution

Smurfit Westrock Packaging Solutions engineers proposed switching to anti-static bubble wrap, validated through ISTA 1A drop testing. The customer also transitioned from pre-built kits to flat-box delivery, using only the material each kit actually required.

Results

The material switch and process change delivered approximately \$80,000 in annual savings, eliminated daily foam waste, freed up significant warehouse space, and maintained full product protection. Packaging Solutions as a top supplier.

SMURFIT WESTROCK PACKAGING SOLUTIONS

Engineering | Supply Chain | Kitting & Assembly | Digital | Automation | Logistics

www.swpackagingsolutions.com



Smurfit
Westrock

Packaging
Solutions

To validate the proposal, Smurfit Westrock Packaging Solutions engineers conducted ISTA 1A drop testing. They subjected both the foam and the bubble configurations to a 10-drop sequence from 30 inches across multiple face, edge, and corner orientations. The proposed pack performed on par with the existing design, confirming that the material change would not increase the risk of damage.

The customer evaluated the results and sample packs and, within approximately one month, approved the material transition and the move to flat-box delivery. These changes delivered measurable improvements across cost, operations, and waste reduction.

Key Outcomes:

- **~\$80,000 annual savings** in material and labor costs, driven by eliminating excess foam and reducing the kitting workload
- **Significant reduction in material waste**, with daily foam disposal eliminated from operations
- **Freed warehouse and rack space**, previously occupied by pre-built kit inventory.
- **Maintained product protection**, validated through ISTA 1A drop testing conducted by our engineers before rollout
- **Improved operational efficiency**, with a leaner, more flexible packing process that uses only the material each kit actually requires

This project reflects what is possible when teams revisit packaging decisions with fresh eyes and without material bias. By questioning an assumption that had gone unchallenged for years, Smurfit Westrock Packaging Solutions engineers found a solution that reduced cost, minimized waste, and maintained performance, delivering on all three at once.