

A close-up photograph of a person's hand holding a brown cardboard box. The box is the central focus, with the words "THE PERFECT FIT" printed on its side in a large, bold, black, sans-serif font. The person holding the box is wearing a dark-colored long-sleeved shirt with thin white horizontal stripes and blue denim jeans. The background is a soft-focus indoor setting with other cardboard boxes visible.

THE
PERFECT
FIT

HOW RIGHT-SIZED PACKAGING POWERS BETTER BUSINESS

Boost efficiency, sustainability, and customer satisfaction with smarter adhesive solutions.



Henkel Adhesive Technologies

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INTRODUCTION

Packaging now carries more responsibility than ever.

Every day, you're under pressure to get orders out quickly, keep costs down, and meet rising expectations for sustainable operations.

But conventional packaging methods often make that harder, not easier.

Too big, and you're wasting materials, filling space with void, and paying to ship air. Overpackaging drives up material and transport costs, frustrates customers with unnecessary waste, and adds to the environmental burden through higher disposal and recycling demands.

Too small, and you risk damaged goods, returns, and reputational harm. Underpackaging undermines product protection, leading to more complaints, rework, and avoidable costs. When you're managing thousands of SKUs across high-volume lines, finding the right balance is difficult, especially when manual processes slow you down and skilled labor is hard to find.

Inefficient packaging creates bottlenecks across your entire supply chain.

That's where right-sized packaging comes in. By tailoring every box to the product inside, you can reduce waste, cut costs, speed up fulfillment, and build a more resilient, sustainable operation. In this guide, we'll unpack what right-sized packaging really means, how to choose the right solution for your business, and where Henkel's hot melt adhesives fit into the picture.

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RIGHT-SIZED PACKAGING SIMPLIFIED

Right-sized packaging takes the guesswork, and the waste, out of e-commerce fulfillment.

Instead of relying on pre-made box sizes and manual packing, each order is scanned, measured, and packed to fit perfectly. Automated machines create a tailored box or envelope, wrap it snugly around the product, and seal it with hot melt adhesive. No tape, no void fill.

The result is leaner, smarter packaging that adapts to your operation, not the other way around.

Why right-sized packaging matters



CUT WASTE AND EMISSIONS:

Using only the material you need means less void fill, lower shipping volumes, and fewer trucks on the road.



SAVE ON COSTS:

Smaller, lighter parcels reduce material and transport costs. Paper use can be cut by 30%, and with less tape or filler, there are fewer consumables to manage.



PROTECT PRODUCTS AND REPUTATION:

A snug fit helps prevent damage in transit, lowering return rates and keeping customers happy.



BOOST CUSTOMER EXPERIENCE:

No more overstuffed boxes or endless filler. Clean, minimal packaging improves unboxing and strengthens your brand.



THE ROLE **OF ADHESIVES**

High-quality hot melt adhesives are what make right-sized packaging work. Unlike tape, which has to be manually applied and later stripped off for recycling, hot melt forms a clean, permanent bond in seconds. It's fed automatically into machines, keeping lines running smoothly with less downtime.

Different adhesives are also tailored to different types of packaging, for example, hot melts for corrugated boxes and pressure-sensitive adhesives for paper envelopes, ensuring every seal is strong, efficient, and fit for purpose.

HOT MELT

Seals in seconds, fully automated

Clean bond, nothing to remove for recycling

No roll changes, no stoppages

TAPE

Manual application slows packing

Tape must be peeled off, complicating recycling

Frequent roll changes interrupt production

The right adhesive ensures every box is securely sealed, production throughput stays high, and recycling is simpler for the end customer. It's the quiet hero behind efficient, sustainable packaging.

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THE RIGHT ADHESIVES FOR RIGHT-SIZED PACKAGING:

YOUR CHECKLIST

Choosing the right adhesive is just as important as choosing the right packaging. The adhesive holds everything together, literally and operationally. It affects packaging integrity, production efficiency, sustainability, and even the customer's unboxing experience. There's no one-size-fits-all solution, which is why it's important to consider the full picture before making a decision.

Use this checklist to guide your selection process and make sure your adhesive keeps pace with your packaging process.

→ Before you decide

Work closely with your adhesive supplier to find the solution that meets your specific needs.

Test selected adhesives under real-world conditions to validate their performance.

Choose the option that fits your current requirements and supports your long-term sustainability goals.

- ✓ **SUBSTRATE:** Is the packaging made from paper, cardboard, recycled material, or does it have a special coating? Is the surface smooth, rough, printed, or coated? Adhesion depends on the substrate and surface properties, so the adhesive must be developed specifically for the material in question.
- ✓ **ENVIRONMENTAL CONDITIONS:** Will the packaging need to withstand extreme temperatures or moisture, such as hot or cold transport conditions? The adhesive must perform reliably across the required temperature ranges.
- ✓ **SUSTAINABILITY:** Is the adhesive compatible with paper recycling? Many companies also consider whether it can support their sustainability goals, for example by being bio-based.
- ✓ **APPLICATION:** The adhesive must suit the chosen application method. Setting time is critical – a faster set can increase production speed, but packaging integrity must be maintained.
- ✓ **MECHANICAL REQUIREMENTS:** Does the packaging contain heavy products or need to withstand high mechanical stresses? If so, the adhesive must offer high mechanical strength. If flexibility is needed, for example with reusable packaging, the adhesive needs to be flexible enough to prevent damage.
- ✓ **CUSTOMER EXPERIENCE:** The adhesive plays a role in the unboxing experience. It should keep packaging secure during transit while still allowing for easy opening without damage.
- ✓ **COSTS:** Cost efficiency and value for money are key. Consider both upfront purchase costs and the long-term savings from reduced material usage and lower shipping costs.
- ✓ **AVAILABILITY:** Make sure the adhesive can be supplied in the required quantities and at short notice if needed.

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STRATEGIES FOR IMPLEMENTING RIGHT-SIZED PACKAGING

Switching from conventional packaging to right-sized packaging doesn't have to be complicated. For new facilities, the system can be built in from the start, so everything is installed exactly where it needs to go. For existing logistics centers, manual packing stations can be replaced with automated machines, even in spaces that are already fully planned. The process can look different for every business, but the goal is the same: a smooth transition to more efficient, sustainable packaging.

Here's what implementation typically involves:

- › **Analyze the current situation:**
Assess your available space and daily throughput to define the scope of your solution.
 - › **Select the right packaging technologies and machines**
Work with system integrators, who connect customers and machine manufacturers, or contact manufacturers directly.
 - › **Involve adhesive, substrate, and equipment suppliers early**
Early collaboration ensures maximum compatibility between materials and machines.
 - › **Development phase:**
Machines are developed and tested during the factory acceptance test (FAT).
 - › **Installation and training:**
Machines are installed on site and staff are trained to ensure a smooth handover.
 - › **Monitoring and optimization:**
Resident engineers support ongoing monitoring and fine-tuning, working with operators to resolve issues and adjust settings.
- **With the right planning and support, implementing right-sized packaging can be a clear, structured process, and one that delivers long-term gains in cost efficiency, sustainability, and customer satisfaction.**

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HENKEL HOT MELT SOLUTIONS FOR *MODERN E-COMMERCE*

TECHNOMELT®

Henkel's TECHNOMELT® E-COM portfolio has been specially developed to meet the demands of modern e-commerce packaging. Each adhesive in the range is designed to run cleanly on automated lines, support paper recycling, and deliver reliable performance across different packaging formats.

All TECHNOMELT® E-COM adhesives are:

- **Certified for paper recycling by cyclos-HTP**
- **Approved for use with machines from all major OEMs and application equipment manufacturers (AEMs)**
- **Compatible with substrates from leading original material manufacturers (OMMs)**

CARTON APPLICATIONS

TECHNOMELT® E-COM E1	General-purpose, excellent heat stability, strong performance across diverse substrates
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TECHNOMELT® E-COM E2 COOL	Low-temperature grade enabling significant energy savings
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TECHNOMELT® E-COM G3	High-adhesion for high memory forces, cohesive with excellent heat stability
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TECHNOMELT® E-COM G4 ECO	General-purpose with reduced carbon footprint (cradle-to-gate, excl. biogenic uptake)
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TECHNOMELT® E-COM G5 ECO COOL	Low-temperature, reduced carbon footprint (cradle-to-gate), significant energy savings
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PAPER ENVELOPE APPLICATIONS

TECHNOMELT® E-COM G10	Excellent heat stability, long open time, highly cohesive, white product
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PUTTING TECHNOMELT® **TO THE TEST**

A UK-based e-commerce retailer relied on right-sized packaging but faced frequent downtime and rising maintenance costs. Their EVA hot melt adhesive, applied at 180°C, caused high levels of char build-up. At 120 kg of adhesive per week, material use was also disproportionately high for the level of throughput.

THE SOLUTION:

The company switched to TECHNOMELT® E-COM E2 COOL, a polyolefin-based hot melt applied at 130 °C. This change aimed to reduce stringing, lower energy consumption, and keep machines running cleanly. Henkel worked alongside Sealed Air Equipment and Interlock Adhesives to support implementation.

THE RESULTS:

- › **42% reduction in energy use:**
from 1.2 kW/h to 0.7 kW/h per tank
- › **52% reduction in adhesive consumption:**
from 120 kg to 62.5 kg per week
- › **Improved processing:**
high adhesion, clean running, low stringing, no char
- › **Longer equipment life:**
savings of €24,000 on nozzles, hoses, filters
- › **Improved safety:**
lower burn risk, less fume exposure from reduced temperature
- › **Minimal downtime:**
weeks of operation with no adhesive issues

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KEY TAKEAWAYS

- **Sustainable packaging is now a critical part of modern e-commerce.** Right-sized packaging offers a practical way to cut waste, lower costs, and reduce environmental impact, while avoiding the pitfalls of over- and underpackaging.
- When combined with the right hot melt adhesive, it becomes an **efficient, automated solution** that protects products, minimizes transport volumes, and supports recycling.
- **Choosing the right adhesive is essential to making this work.** Substrate properties, environmental conditions, and production requirements all play a role in selecting the right solution for long-term performance.
- **As e-commerce continues to evolve,** so will the packaging solutions that support it. Innovations in adhesives, bio-based materials, and digital technologies will **unlock even greater efficiency and sustainability.** By working closely with partners across the value chain, Henkel is helping shape that future, starting now.

Ready to optimize your packaging?

Visit our [landing page](#) to explore right-sized packaging solutions for enterprise businesses.





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YOUR LINK TO OUR TEAM OF EXPERTS

An experienced team is on hand to answer any questions you may have. We're always here to help.

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