

FLEXIBLE MATERIAL CONVERTING Q&A

Seeing the Small Details. Living the Big Picture.



Transforming raw materials into final, usable products is the essence of converting. It's a highly intricate and detailed process and may include complex tight-tolerance die cuts, precise slitting, automated assembly, and vital repeatability.

However, the best converting partners take a "big picture" point of view, converting ideas into solutions. For sophisticated, design-focused customers, a converter requires expertise, insight, and creativity to become truly valuable.

Here are the most common questions converters hear (and their answers) when it comes to flexible material converting.

"What kind of flexible material can be converted?"

Many materials are produced on long, continuous sheets and rolled up. A converter takes these thin, flat rolls and transforms them into a more usable form, oftentimes a final product.

A converted flexible material is one that bends or compresses easily without cracking. These may include tape, film, foam, soft metal, plastic, rubber, cloth, and others. Methods used by converters include die-cutting, slitting, spooling, flexo and digital printing, laminating, coating, and more, usually performed on large pieces of equipment.

"How do I choose material?"

While you may have a good idea of what you want toaccomplish, you may not know the range of materials available for the application. Here's how converting is seen as the process of transforming ideas into solutions. That transformation requires an experienced converter to help you evaluate and select materials, and that doesn't always mean using the cheapest materials, which could cost more in the long run.



The best converting partners know thousands of materials and hundreds of vendors, which helps when longevity and durability are valued as much as price. Plus, some implement testing programs to see how real materials perform in real-life scenarios before moving to final production.

Once the right material is identified, the correct format, shape, size, and color are selected. Lastly, the team should consider any future production process, so the converted product provides the exact right solution. A converted part that isn't scalable is virtually useless in a lot of projects. What happens when the "right" material doesn't come standard? For example, if two different adhesives are required for the project or a desired thickness is not available, a quality converter can build the raw material by combining different products to make the right solution for your project.

"Can't I convert in-house?"

It may sound simple enough: cut, slit, or combine materials into something else. Yet, it actually requires high-cost equipment and expertise to do it properly. Nailing an intricate, tight-tolerance die-cut, for instance, is demanding and has to be repeated reliably.

A quality converter understands technology, materials, and processing options. This knowledge base enhances the ability to scale and improve efficiency as a product matures. Converting in-house usually involves buying a machine to run



a particular process, and if only one thing about that process changes, an entirely new machine may be needed. That isn't an issue with an experienced converter with extensive equipment and technology.

Lastly, the converter team has dedicated and engineering-focused experts who reach levels of quality unachievable by in-house staff and can develop solutions that stump industry leaders. When it comes down to it, poor quality flexible materials aren't something most companies can afford to use.

"What makes a quality converter?"

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As mentioned, having innovative product development and process engineers on staff uncovers a problem before it becomes one. They do this by seeing the big picture; they understand not just the goal of converting, but also the "why and what" of each product's end use.

Here's an example. When converting for the medical industry, cleanliness is vital. Even the smallest piece of dirt or debris can contaminate medical devices, promoting bacteria and mold growth. An ISO 7-certified clean room with humidity controls is imperative. To go the extra step, some clean rooms are equipped with a separator filter dryer (SFD), which continually draws in air from the room, filters out dirt and air particles, and removes any moisture, feeding hospital-grade air back into the cleanroom.

You'll find this level of dedication from converters with manufacturing expertise, supply chain insights, and the most important aspect of all: experience. They have engineering experience with converted flexible materials, they have experience developing custom solutions, and they have converting experience with many industries, giving them a broad perspective in innovation, quality, and technology. This expands the possibilities for a product by utilizing the proper technology and the suitable material at the right cost point.

"How do I evaluate a converter?"

Here's a checklist to review before choosing a <u>flexible material converter</u>.

- **Full-Service** A simple tape converter can do a lot. Yet, you'll likely require additional services to fulfill your entire process from product development to final sign-off and beyond. Look for a partner that stresses flexible material solutions, has full adhesive converting expertise, and offers seamless support.
- **Fit, Form, Function** Hinted at in the materials questions above, the right material selection (fit) is followed by uncovering the correct format, shape, size, and color (form), and then considering future production processes, ensuring the solution is correctly and easily used (function).
- Quality Assurance Capabilities Every converter checks their quality. But, few have dedicated quality assurance teams that perform set-up, randomized in-process, and final inspection of parts, ensuring tolerances are met. Fewer still (only upper-level converters) offer real-time, 100% video inspection of each part while it's on the press.

- ISO Certifications Converters serious about implementing a robust quality system achieve quality management system (QMS) certifications – ISO 9001:2015 and ISO 13485:2016 – to ensure projects maintain the highest quality standards. Plus, these converters document materials and processes from initial concept to final product inspection.
- Experience/Innovation These usually can (and should) go hand-in-hand. Engineering teams that have been around the block, address issues you may not ever become aware of well before they become a problem. These engineers also help you figure out the best solutions; what you think you need may not be what you really need.
- 3M Preferred Status 3M, industry leader and innovator, honors superior adhesive converters by recognizing them with "3M Preferred" status, their highest honor. These converters are given access to the 3M team of technical specialists to deliver the best product at competitive prices.

"What is fair pricing?"

So, what do the most scientifically advanced adhesive materials and converting in the world cost? It varies widely because some converters have certain production advantages (equipment, engineering, location, etc.).

For instance, some converters, because of their connection to 3M and frequent purchases, can offer special pricing that's unavailable elsewhere. Even the prices of their roll goods beat going direct.



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