

Don't Get Stuck With the Wrong Adhesive Supplier

Adhesive technology is critical to many aspects of medical device technology, from securing components within a finished device to adhering wound care products or electrical pads directly to a patient's skin. Therefore, it is of paramount importance that a company find a supplier with which to partner that can address the many needs they have. This article outlines the key qualities to seek in an adhesives supplier.

By Jennifer Bowman



The adhesive properties found in transparent dressing applications are ideal for wound dressings and catheter/IV securement.

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Medical technology is evolving at a rapid rate. Every day, life-changing innovations emerge that were previously never thought possible. But as the expression goes, "the more things change, the more they stay the same." Regardless of the product being developed—or how it will be used—the desire for the utmost quality at every step along the product development process is at the forefront. The primary source

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of concern for every design engineer is the fear that there will be a quality failure, which will affect their business and, in the end, impact customer relationships. A true point of differentiation in today's medical design industry is the same as it was generations ago—what supplier can deliver a consistent, quality product, ensuring peace of mind for the design engineer, while protecting both the bottom line and, more importantly, the company's reputation. Following are several specifics to consider when evaluating options for an adhesives supplier.

- Application diversity—Does the application require gentle removal (from sensitive skin) or aggressive hold (for extended wear)?
- Range of adhesive properties—A company may need to address a variety of products and it shouldn't settle for a "one size fits all" solution. Seek a partner that can offer several adhesive properties, such as quick tack, gentle peel off, breathability, shear strength, and clean removability.
- Flexibility—It is impossible to predict what challenges will be presented from one day to the next. A supplier needs to offer significant flexibility when it comes to custom-matching adhesives to foams, films, fabrics, and more.
- Tried and true—Perhaps most importantly, the supplier's products should be tested according to ISO 10993-5/-10 standards for cytotoxicity, skin irritation, and skin sensitization.
- Reliability—A supplier that offers all the above but cannot deliver product in a timely fashion is of little value. A good measuring stick is a lead time of three to five days.
- Expertise—It is important to have a trusting relationship with the supplier's sales team; however, it is even more important to trust the people that stand behind them. Does their passion, expertise, and "you-first" mentality extend to the production floor? Ask the sales team for a tour or request to participate in a production meeting to get a better feel for who is actually producing the product.



Device and electrode

manufacturers rely on adhesive systems that are customizable. These custom adhesives can be coated on foams, films, or fabrics to suit specific device construction requirements, all while providing specific quick tack, shear strength, and clean

removal.

Look at Tomorrow—Today

As important as the previous points are, an often overlooked aspect when evaluating quality is how a supplier applies it beyond existing technologies. This is critical as the medical industry prepares for significant growth resulting from emerging technologies. Does a quality product today translate to a quality product tomorrow? Two examples of where a progressive supplier can truly contribute to long-term success are product customization and new applications.

Customization

Medical device manufacturers need to evaluate how its current supplier approaches a customized product? Is its selection of facestocks and adhesives limited? Is it willing to look beyond current "on the shelf" stock? It is imperative that a supplier not only meet these basic requirements, but offer more.



Choosing a supplier with a diverse product line provides access to single-coated and double-coated pressure sensitive adhesive systems, with a range of adhesive strengths, specifically designed for use in surgical drape application.

Design engineers across the medical industry are constantly looking to simplify products such as medical devices, electrodes, surgical drapes, and transparent wound dressings to advance safety, patient comfort, and ease of use. Improvements such as these are projected to have a significant impact on managing patient care and efficiencies as well as healthcare costs. Being ready with a supplier able to address the demands and specifications of these yet-to-be-developed products will position a medical device manufacturing company ahead of its competition.

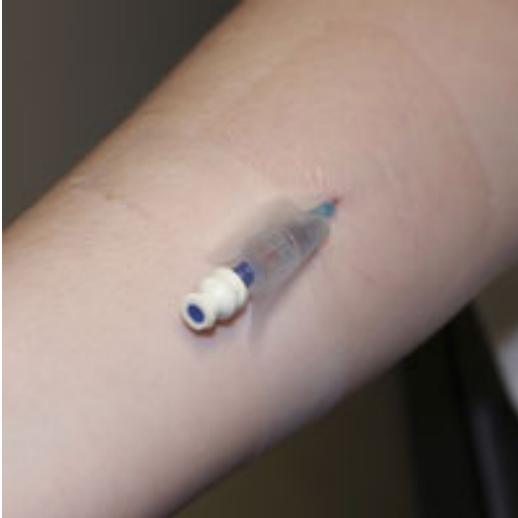
New Applications

Customization is the result of an unforeseen opportunity. However, in the case of new applications, the market has recently been altered and demands new solutions. Case in point is the baby boomer generation. As the population ages, the demand for skin-friendly products designed for sensitive skin is increasing. It is important to

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team with a supplier that has a deep queue of medical-grade adhesives that can support the industry's changing demands. A few examples of what should be considered include a smooth, silky removal; conformance to geriatric skin-types; and patient comfort from initial contact to pain-free removal.



Adhesive offerings for transparent dressings incorporate a variety of product constructions including polyester and polyethylene casting sheets to accommodate different converting methods and dressing styles.

Review the Bottom Line

At the end of the day, "you get what you pay for." Not a comforting thought given that healthcare costs are being scrutinized more than ever before. Every link in the chain is being evaluated to ensure high quality for long-term gain. Following are a few examples of how a supplier's product potentially affects a customer's bottom line—and its reputation.

- Long lasting adhesives—Choose a supplier that has an excellent range (ideal is seven to 30 days) to help reduce the number of bandage and patch changes required for a patient.
- Dynamic characteristics—The supplier should offer an adhesive line that is as diverse as the patients who will be treated. Consider ethnicity, gender, age, area of the body, and lifestyle.
- Certified quality—Be sure that the supplier chosen offers adhesives that have met the strict guidelines of ISO, FDA, and cGMP. Failing to do so could result in adhesive failures that cost a company later down the line.
- Be direct—It's no secret that direct skin is critical. Consider that there are an estimated 500,000 surgical site infections (SSI) each year in the U.S. A significant number by any means, but multiplied when the resources to attend to and heal those infections are considered. The adhesive alone can

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directly impact this number. Working with a quality adhesive allows for a safe, firm adhesion in drape-to-drape and drape-to-patient applications, which helps lower the risk of SSI and provides a significant performance advantage over competitive materials. In addition, promoting total direct skin contact ensures accuracy in monitoring and testing that requires electrical conductivity.

Conclusion

In short, quality is timeless. Trends, technologies, and innovations will continue to direct the future of product development. While tomorrow's products will certainly feature ingredients and ideas that haven't even been thought of yet, it is safe to say that quality is one component that will always be critical to successful design and development. As such, it is vital to establish a lasting relationship with an adhesive supplier that will both celebrate and support this belief.

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