

# Applying 3M adhesive science to the next generation of “stick-to-skin” retail products

Here’s how using medical adhesives from 3M can give your products a significant competitive advantage.

The potential for retail stick-to-skin products is only limited by the imagination! Here are just a few examples of common application areas:

## Fashion & Glamour

- Fashion/Garment Tape
- Jewelry Affixation
- Artificial Nails
- Actor’s Tape
- Temporary Bras
- Costumes
- Double-Eyelid Tape

## Personal Care

- Acne Patches
- Footcare Cushioning
- Sanitary Products
- Wigs
- Dress Shields
- First Aid Products
- Over-the-counter Healthcare Products

## Athletics/Sports

- Concussion/Physical Condition Sensors
- Kinesiology Applications
- Sports Tapes

## Miscellaneous

- Homeopathic Care
- Traditional Chinese Medicine

You see them almost everywhere: temporary tattoos spreading smiles at a child’s birthday party. Bandages guarding small scrapes from infection. Sports tape ensuring athletes’ safety during intense competition. With low barriers to entry and virtually limitless applications, the retail stick-to-skin market is a good choice for companies looking to expand.

## Why use medical adhesives?

Whether you’re already selling stick-to-skin products, or are just considering getting into this market, one of the most crucial questions you face is, what adhesives will you use to put the “stick” in your stick-to-skin applications?

Skin can have an allergic reaction to many things that come in contact with it, such as adhesives. That’s why, in healthcare and medical device applications, any adhesive used for skin contact must be tested for biocompatibility. This reduces the risk of the adhesive causing a major skin irritation.

3M has been a pioneer in adhesives technology since we started business back in 1902. And, for over 50 years we have been applying that experience to the medical device industry through our Medical Materials and Technologies group, offering customers a wide range of medical-grade tape, adhesive and film components—and the knowledge needed to make these components work for you.



# Putting 3M Science to work

For companies looking to branch out into the retail stick-to-skin market, 3M Medical Materials and Technologies can provide the tools and expertise needed to make your products stand out. Our adhesives are tested to the rigorous standards of the medical industry for customer safety and satisfaction to protect your customers and your brand. Our decades of experience and extensive scientific knowledge uniquely situate us to help you choose the adhesives and backings that make the most sense for your applications. **Let us demonstrate how 3M Science can be an important competitive advantage for you.**

## Tested for safety and comfort

There are clear advantages to using medical adhesives for retail stick-to-skin applications. In any brand-focused market, trust is essential. Adhesives that cause allergic reactions can erode that trust, and damage your brand's reputation.

Medical adhesives from 3M undergo testing for biocompatibility and sensitivity. This greatly reduces the possibility that consumers will suffer skin irritation. You get the same data-verified safety and comfort guaranteed to products used in medical markets, to help you protect your customers—and your brand reputation.

## Putting Medical Adhesives to the Test

Here are some of the tests medical adhesives commonly undergo during development:

- **Biocompatibility and Safety Testing**  
All medical products must undergo comprehensive safety and efficacy evaluations as recommended in the International Standard ISO-10993, Biological Evaluation of Medical Devices, Part 1: Evaluation Testing.
- **Cytotoxicity Screening Test**  
Uses cell culture techniques to assess level of toxic effect on cells caused by test materials and/or extracts from the material.
- **Primary Skin Irritation (PSI)**  
Assesses irritation potential caused by the chemical composition and/or mechanical trauma of removing a test material from animal (usually rabbits).
- **Guinea Pig Sensitization**  
Assesses sensitization potential of chemicals in the product by repeat exposure of the animal to test product.

## Choosing the right adhesive: a balancing act

Once you've decided to use a medical-grade adhesive, the next question is: which adhesive technology is the best fit for a given application?

Customer expectations for retail stick-to-skin applications require a difficult balancing act. For example, here are some common performance characteristics requested by consumers:

- Good adhesion during use—but also gentle to the skin when removed.
- Breathable—but also waterproof.
- Resistant to friction—but also soft and conformable with every movement.

As these examples demonstrate, there is no one-size-fits-all adhesive solution. That's where we can help. 3M has the medical and technical expertise to determine what adhesive best fits your application, helping to ensure that your products strike just the right balance to meet—and even exceed—customer expectations.

With this in mind, here are a few of the key factors that are important to consider during the design phase of your product:

- Shape of the device
- Use/application
- Demographic
- Processing
- Handling (Human factors)
- Component materials
- Body location



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