

**3M** Science.  
Applied to Life.™



## Designing wearables that win skin in the market.

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As diagnostic devices move closer to home, we'll need solutions that accommodate all lifestyles. We want wearables that stick through everything, from swimming to sweat. Solutions need to be soft enough for a baby or elderly person's skin, yet strong enough to stay on for an extended period of tracking and monitoring.

**Grounded in skin comfort and fueled by customer needs, the 3M team is adapting to better support the medical wearables market. Here's how.**

# Our unique approach.



Developing an innovative diagnostic design is just the first step in the journey to scale. The manufacturing expertise and experience of 3M means we're uniquely suited to help our customers build better solutions at scale. We can **offer robust quality controls and reliable supply** to help grow your platform.



## Solving for customer needs.

End users are facing many challenges and their expectations for wearables are evolving. Wearables need to maintain skin integrity and condition, even while many devices are becoming heavier and more complex. Consumers are hoping for liner-free storage stability and have long term monitoring needs. **Designs need to hold up for longer wear times of at least 14 days at 90% survivability.**

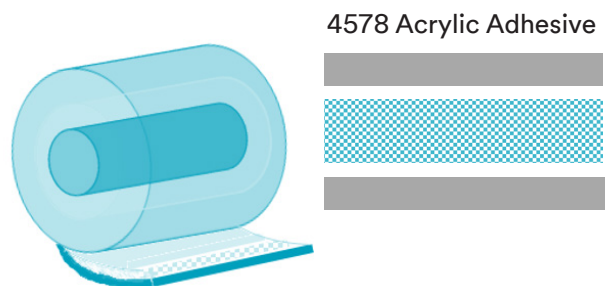
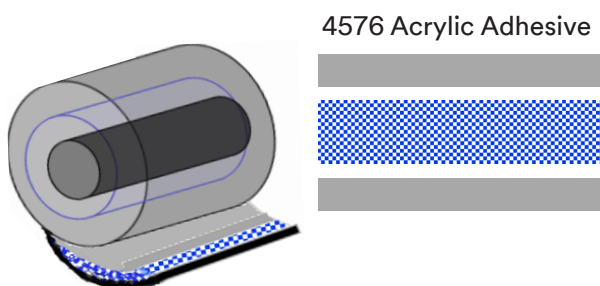
The variety of segments where wearables are used is also expanding. **Wearables aren't just for fitness tracking** — they're evolving to provide continuous glucose monitoring, track chronic conditions and act as long-term medical devices.

To provide unique solutions that meet the needs of the medical wearables market, **we're evolving our design and process.**

## Designed for extended wear.

The latest extension in our extended wear portfolio line, **3M™ Medical Tape 4578, features a wear time of up to 28 days.\*** Skin-friendly during extended wear and delivering acceptable skin condition after removal, the tape also supports user comfort and features open face stability.

The extension of 3M Medical Tape 4578 adds the ability to store the converted part without a liner, offering greater customer design flexibility. It's able to adhere to LSE surfaces, and it's biocompatible for use on intact skin.



Coloring is for illustrative purposes only.

\*Length of wear time can vary on application, thickness, area on body, and age of user.

One of the other major benefits?

# 90% survivability at 28 days.

## Proportions of Samples Adhered on the Arms (Primary Objective)

#	Adhesive	Backing	% Survivability
1	NEWS 1.1	Melt Blown	93.1%
2	NEWS 1.1	0.8 mil PUR	91.7%
3	NEWS 1.1	Spunlace (Production)	97.2%
4	NEWS 1.1	Spunlace (Pilot)	100%

## Product-Limit Survival Estimates

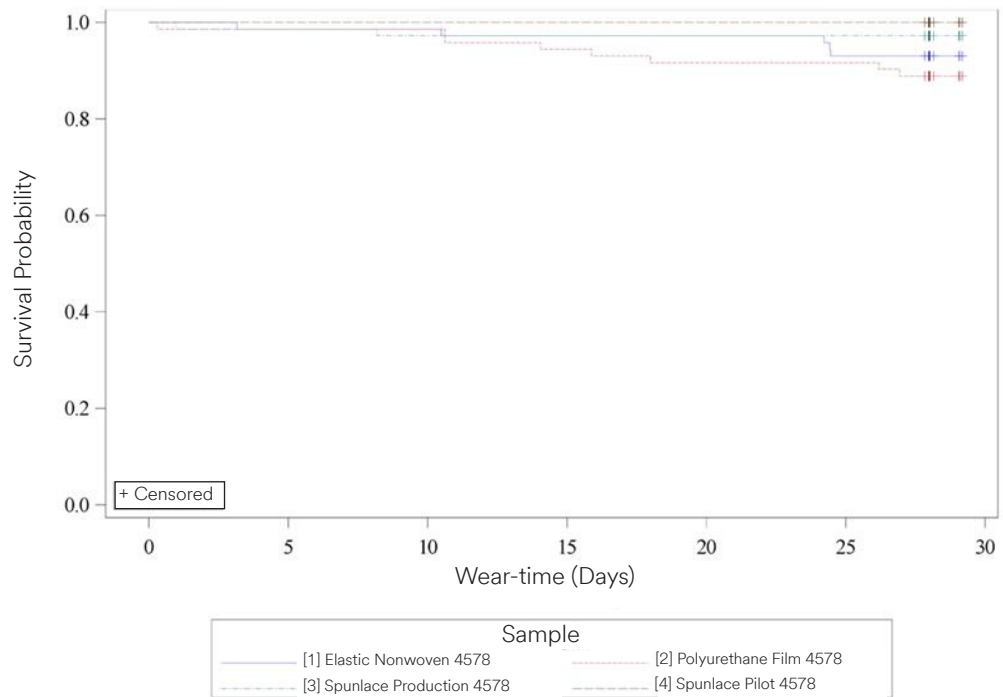


Table Source: Clinical Report #EM-05-015053  
Length of wear time can vary on application, thickness, area on body, and age of user.



## At 3M, it starts with skin.

While staying true to our focus on user comfort, we're continuing to evolve our design and process to meet the needs of the medical wearables market.

[Learn more about how our adhesive solutions can complement wearable technology.](#)



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