

Unlocking comfort and innovation.

Material solutions for wearable patches.



The next generation of wearables

With the growing digitalization of healthcare and the need to perform remote patient monitoring, wearable technologies are rapidly entering the medical market. Smart skin patches are a good example for this development. This innovative digital application performs transdermal transmission, continuous monitoring or electronic stimulation. Wearing medical devices directly on the skin makes skin-friendly comfort a key element for these cutting edge wearables.

When it comes to wearable electronics, devices worn on the skin need to be able to:

- move and stretch along with the skin
- remain on the body for extended periods of time without damaging the skin
- ensure breathability and high-wearable comfort without limiting freedom of movement

Exemplary Platilon® film with printed electronics



Scan to learn more about wearable skin patches



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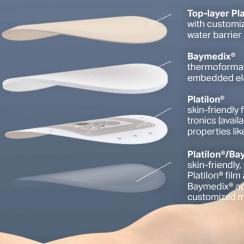
films.covestro.com films@covestro.com

To achieve above average comfort, Covestro has developed high-performing Platilon® films and Baymedix® foams that enable designers and brand owners of wearables to achieve outstanding designs:

- soft, matt, stretchable, printable, breathable TPU Platilon® films for a skin-friendly patch
- low-trauma, breathable PU Baymedix® adhesives that avoid the risks of skin sensitization during to prolonged wear
- overall thin patch design enables accurate measurement of vital signs
- lightweight design based on TPU thermoformable Baymedix[®] foams in which the printed electronics can be embedded, avoiding hard shell devices

Covestro has a team of experts for individual advice on material selection and design. Contact us today to learn more on how to achieve the next generation of wearables.

Exemplary layer structure for wearable patches



Top-layer Platilon® with customized properties like water barrier or breathability

thermoformable foam for embedded electronics

skin-friendly film with printed electronics (available with customized properties like water barrier)

Platilon[®]/Baymedix[®] skin-friendly, strechable Platilon[®] film and breathable e (available with al properties)

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