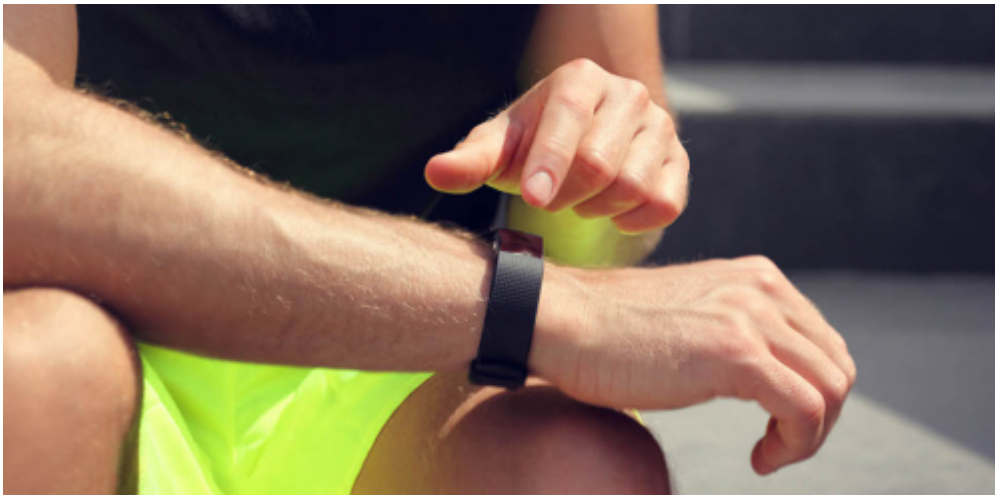


Case study: increasing product design opportunities with Born2Bond Ultra HV CA

As consumers increasingly prefer smaller, more portable, *wearable electronic devices*, assembling the intricate components can prove challenging. This challenge is further compounded when considering skin contact material requirements and the bonding issues these materials can pose. Fortunately for a wearable electronic device manufacturer, our [Born2Bond™ Ultra HV](#) was able to address their bonding challenges while increasing their design opportunities overall.



The problem

A wearable electronic device manufacturer was using a cured silicone material for a fitness tracking component. While silicone was chosen because it addressed skin contact requirements (biocompatibility, sweat and odour resistant), *bonding the silicone to polycarbonate* was seemingly impossible due to its low surface energy. The company tried many adhesive technologies and invested significant time and resources to solving the problem. However, nothing they tried worked for

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their manual application processes. It was beginning to look like the company would need to forego the entire project.

The solution

After trialing suggested products across multiple departments, the company agreed that our [Born2Bond Ultra HV cyanoacrylate adhesive and primer](#) provided unmatched adhesion compared to any other technology they had tried. In addition to bonding the initial component together, this adhesive offered high bond performance for other component assembly applications. Through this trial, it was clear that not only did our **Born2Bond Ultra HV** solve their initial bonding problem, but it also opened up the opportunity for other design and bonding possibilities not previously considered. This is because **Born2Bond Ultra HV** is based on a fast-bonding, formulated instant adhesive technology designed specifically for challenging, “by-the-dot” assembly needs. In addition to bonding silicone to polycarbonate, the adhesive needed to work well for very small, precise and fast manual application methods.

Postive outcomes

Since implementing **Born2Bond Ultra HV** across their production lines, the manufacturer has been able to:

- Increase precise application capabilities due to long tip applicator
- Enhance overall product aesthetics given “by-the-dot” application
- Improve capacity due to rapid, 15 second fixture time
- Heighten aesthetics on black substrates via low-blooming characteristics

Further, the manufacturer was able to experience the product’s value without having to:

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- Invest funds in any equipment
- Increase their manufacturing space

The manufacturer found that the product worked best with a **Born2Bond Primer** for bonding silicone and seamlessly integrated into their production line processes.

Features and benefits

- Low odour – enhancing worker safety and comfort
- Less brittle than conventional instant cyanoacrylate adhesives – increasing performance capabilities
- Multi-substrate adhesion – improving process flexibility and design opportunities
- Fast fixture time – increasing capacity and quick handling
- Long open time – enhancing application flexibility
- Low blooming – improving final aesthetics

Contact us today to find out how **Born2Bond** can help solve your complex product assembly challenges.

Supplied by:

intertronics

INTERTRONICS

12a Station Field Industrial Estate, Banbury Road, Kidlington

Oxfordshire England OX5 1JD

t 01865 842842 e info@intertronics.co.uk

Last updated: February 2022

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