## **CASE STUDY**

## intertronics

adhesives, coatings, sealants & equipment for your manufacturing and technology applications

### Born2Bond Ultra HV

Single part, instant cyanoacrylate adhesive



#### Customer

Wearable electronic device manufacturer

#### **Customer benefits**

- Increased precise application capabilities
- Effective bonding of cured silicone to polycarbonate
- Enhanced overall product aesthetics
- Improved production capacity
- Low-blooming characteristics on black substrates



# Unsightly blooming eliminated from commercial wearable technology

A wearable electronic device manufacturer was using a cured silicone material for a fitness tracking component. While cured silicone was chosen because it addressed skin contact requirements (biocompatibility, sweat and odour resistance), bonding it to polycarbonate was seemingly impossible due to its low surface energy.

The company tried many leading adhesive technologies currently available on the market and invested significant time and resources to solving the problem. However, nothing worked for their manual application processes. It was beginning to look like the company would need to forego the entire project.

Fortunately, a leading distributor reached out to the manufacturers of Born2Bond adhesives for the team's thoughts on adhesive technologies that would be up to the challenge. In addition to bonding cured silicone to polycarbonate, the adhesive needed to work well for very small, precise and fast manual application methods.

After trialling Born2Bond<sup>™</sup> products across multiple departments, the company agreed that the **Ultra HV kit (adhesive and primer)** provided unmatched adhesion compared to other technologies they had tried. In addition to bonding the initial component together, the kit offered high bond performance for other component assembly applications.

Through this trial, it was clear that not only did the Ultra HV kit solve their initial bonding problem, but also opened up the opportunity for other design and bonding possibilities not previously considered. This is because the Ultra HV kit is based on a fast-bonding, formulated instant adhesive technology designed specifically for challenging, "by-the-dot" assembly needs.

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Since implementing the Born2Bond Ultra HV kit across their production lines, the manufacturer has been able to enhance the product's aesthetics due to the low-blooming characteristics on black substrates. Production capacity also saw improvements thanks to the 15-second fixture time, significantly reducing work-in-progress parts. Furthermore, the manufacturer was able to experience the product's value without having to invest any additional funds in equipment or increase their manufacturing space.

The manufacturer also found that the product worked best with a Born2Bond Primer and seamlessly integrated into production line processes.

#### **Born2Bond Ultra HV**

- Fastest bonding MECA-based cyanoacrylate adhesives
- Low odour, low bloom with fast cure no compromise
- High bond strength
- Less brittle than conventional "instant" adhesives
- Bond a large range of materials, including polystyrene
- Transparent bond lines
- Non-hazardous, non-irritating

**Applications include:** Plastics, rubber and metal bonding. Loudspeaker and motor assembly. Electronic component bonding and PCB assembly. Leather bonding. Automotive aftermarket. Rubber seals.



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