Bostik

BORN2BOND™

Make Smarter, More Innovative Products

With **Born2Bond™**
FLEX and **LIGHT LOCK HV**

Adhesive solutions by
ARKEMA
INNOVATIVE CHEMISTRY

Bostik BORN2BOND™

APPLICATION OVERVIEW

In today's technologically-advanced world, consumers want products that are increasingly better, smarter and more intuitive to their needs to improve their well-being. For brand owners and manufacturers, this means continuing to push the boundaries on innovative, increasingly-smaller devices that can give consumers new product options unlike anything they've seen before.

The miniaturization of devices can pose assembly and bonding challenges, especially when placing electronic sensors and batteries in an already-small component, such as inside the shaft of an archery arrow.

Fortunately for a leading electronic device manufacturer, Bostik's **Born2Bond™ Flex** and **Light Lock HV** adhesives helped them address these challenges and make arrows smarter and more innovative.

THE PROBLEM

A leading electronic device manufacturer was looking to bond an impact sensor and LED array onto an arrow shaft and affix the battery inside. In addition to being very small and comprised of many components, the sensor and its battery had to withstand the environmental elements, as well as the high velocity, high impact force an arrow would experience.

The company tried many leading adhesive technologies currently available on the market, but none offered the performance requirements needed for both the sensor and battery. The following failures occurred:

1. The sensor and/or battery failed from the impact force of the arrow hitting its target or even more probable, not hitting the target and connecting with a rock or nearby tree.
2. The bonded assembly allowed water ingress, causing failures with the sensor and/or battery.

It started to seem like they would not find an adhesive that would allow them to make this innovative arrow possible.

THE SOLUTION

Fortunately, a leading distributor reached out to Bostik for our team's input on adhesive technologies that are up to the challenge. For this application, weight distribution is especially important. In addition to meeting stringent mechanical property requirements, the chosen adhesive needed to securely bond the components into the arrow shaft in order to maintain the correct balance throughout the arrow shaft.

After evaluating the products in our **Born2Bond™** demonstration kit, the company saw that our **Born2Bond™ Flex** and **Light Lock HV** products were able to address bonding, protection and weight distribution needs for both the sensor and the battery, offering:

BORN2BOND'S VALUE

FLEX

Born2Bond™ Flex proved ideal for the battery component of this application, because it was able to maintain full performance even as the arrow hit its target.

- Over 200% elongation for unmatched strength and flexibility
- High impact resistance for enhanced performance
- Gel consistency for precise application and protection from water ingress

LIGHT LOCK HV

Born2Bond™ Light Lock HV was the product of choice for the sensor component of this application, because it resisted disbanding under impact force and was odorless for a safer, more comfortable manufacturing process.

- 5-10 second fixture time to keep assembly lines moving
- Low blooming for improved final product aesthetics
- Strong bond to sensor housing plastic to withstand the high impact forces
- Environmental protection for the sensor in the housing

Possessing unmatched performance capabilities, these compatible products offer a unique, innovative combination that enabled the manufacturer to address both the sensor and the battery bonding needs and propel his smarter product ideas forward.

This is because **Flex** and **Light Lock HV** are based on a fast-bonding, formulated instant adhesive technology designed specifically for challenging, "**by-the-dot**" assembly needs.

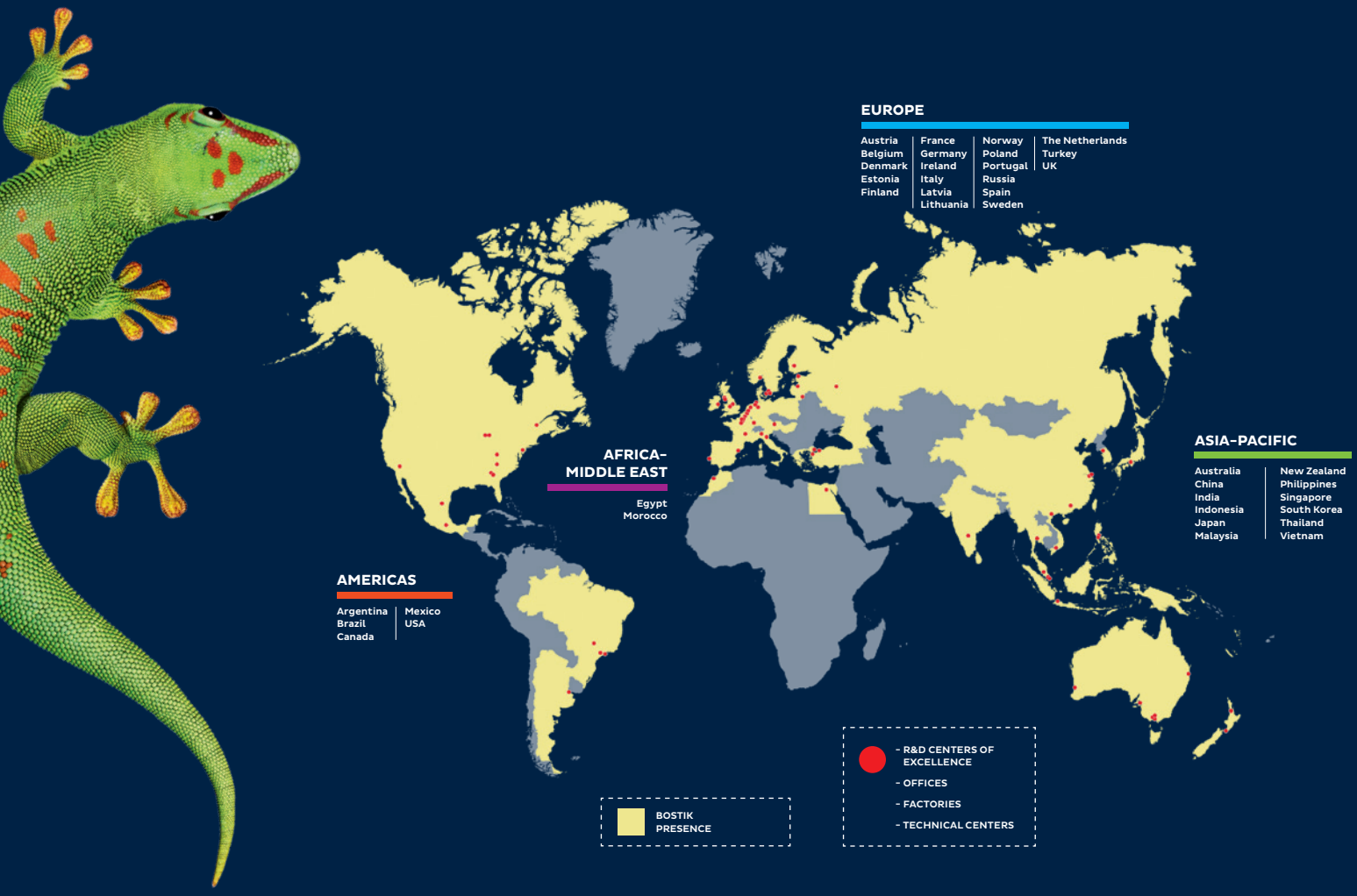
BORN2BOND'S VALUE

Since implementing **Born2Bond™ Flex** and **Light Lock HV** into the arrow manufacturing process, the manufacturer has been able to:

1. Increase precise application capabilities using robotic dispensing equipment
2. Meet product performance requirements of -40ºC
3. Improve the well-being of their employees with **Born2Bond**'s low-odor formulation

Get started using **Born2Bond**!

Visit **Born2Bond**.Bostik.com
for full product line information.



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