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# BORN<sup>2</sup> BOND™



UV Cure-In-Place Gasket  
(UV-CIPG) Solutions

Adhesive solutions by  
**ARKEMA**



# BORN<sup>2</sup> BOND™

## Our Vision

For over 130 years, Bostik, an Arkema company, has been a leading global adhesive manufacturer specialising in innovative bonding and sealing solutions.

Bostik collaborates and innovates to create smart adhesives that are safer, more flexible, efficient and responsive to the dynamic challenges of our environment.

## Born<sup>2</sup>Bond™ UV Cure-In-Place Gasket (UV-CIPG) Solutions

The Bostik **Born<sup>2</sup>Bond™ UV Cure-In-Place Gasket (UV-CIPG)** range is a revolutionary gasket system, commonly used in applications that require a fast, cost effective and cutting edge solution such as in electronics manufacturing and automotive sectors.

The **UV-CIPG** adhesives can be easily applied with an automated dispenser which can be programmed to follow a specific application area. This method of application can save many hours of preparation and applying the gasket onto a product housing, and also helps to reduce the volume of materials used. The gasket is cured immediately during application using UV light.

The **Born<sup>2</sup>Bond™ UV-CIPG** range is Bostik's latest innovation in engineering adhesives and has been designed to address the detailed and precise bonding requirements demanded by modern industry.

## Bostik **Born<sup>2</sup>Bond™**

**Born<sup>2</sup>Bond™** offers innovative solutions for a wide range of applications and industries. These solutions will enable customers to improve efficiencies, increase design opportunities and enhance sustainability, making it easier for them to manufacture better, safer and more innovative products.

As engineering adhesive applications develop, they raise new challenges. These include questions on how to apply adhesives to ever-smaller and more complex items, how to accelerate curing processes and how to reduce waste, all while complying with environmental and health and safety regulations.

In response, we have developed a portfolio of ground-breaking engineering adhesives that focus on detailed and precise bonding applications. These products sit under the **Born<sup>2</sup>Bond™** brand – this name reflects our purpose and the collaborative bond we have with our customers.





For water and dust proofing applications, moulded and cut gaskets are widely used. These gaskets are typically assembled by hand.

However, moulded gaskets are labour intensive.

### Moulded Gaskets

- ❌ Labour intensive
- ❌ High labour cost
- ❌ High defect rate
- ❌ Mould cost

- Extremely flexible and tough, it does not crack even when compressed or deformed
- High thixotropic indexes enable the creation of complex gaskets on flat surfaces or shallow grooves
- Immediate curing using UV light
- Enables micro-dispensing



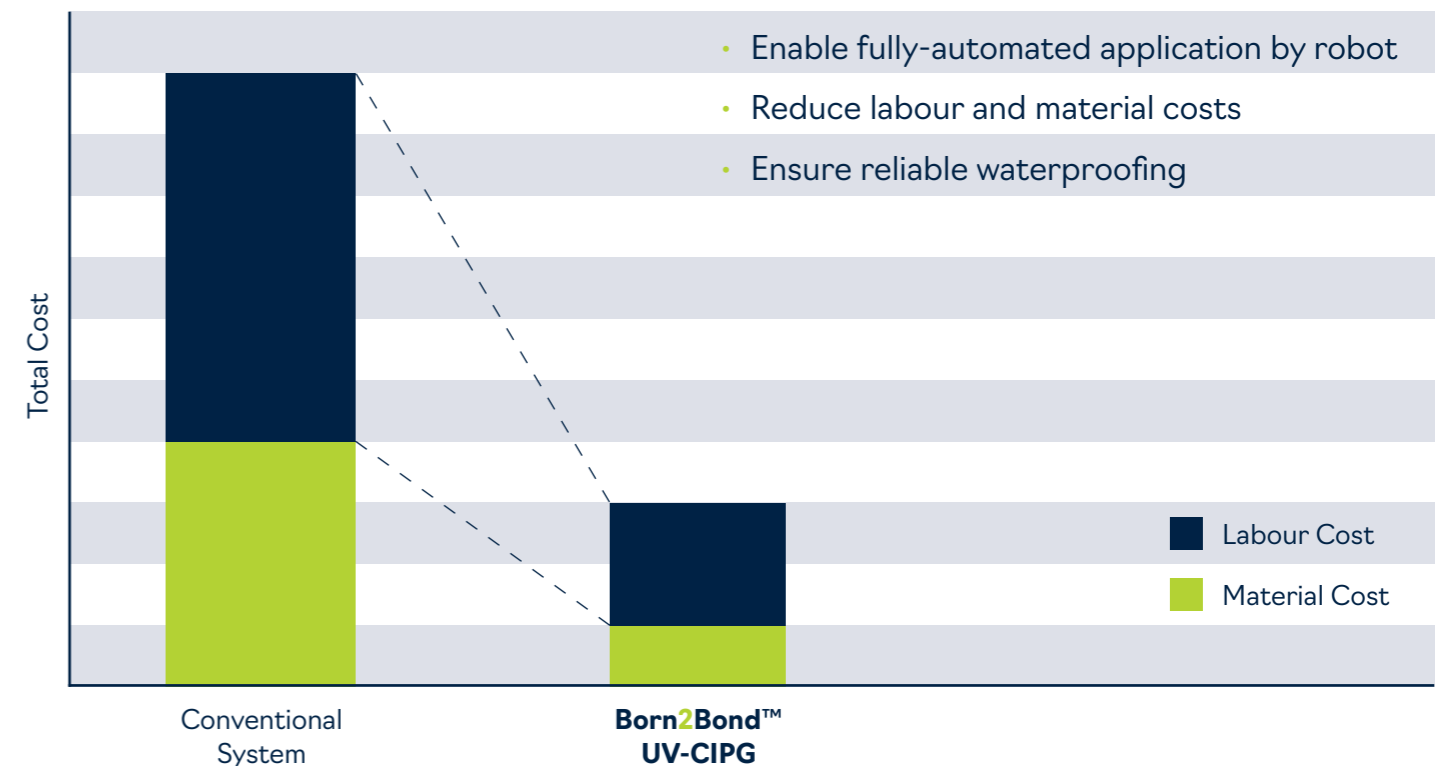
Bostik **Born2Bond™ UV-CIPG** has been developed to meet the demands of modern manufacturing processes: high efficiency, automated processes, complex designs, smaller size, lightweight, less waste, and water/dust proof.

With products that offer excellent elasticity and easy dispensability, along with exceptional quality, durability and strength, **Born2Bond™ UV-CIPG** is emerging as a top choice for industry players.

### Bostik **Born2Bond™ UV-CIPG**

- ✅ UV curable
- ✅ Low labour cost
- ✅ No mould
- ✅ High precision
- ✅ Automatic robot dispensing

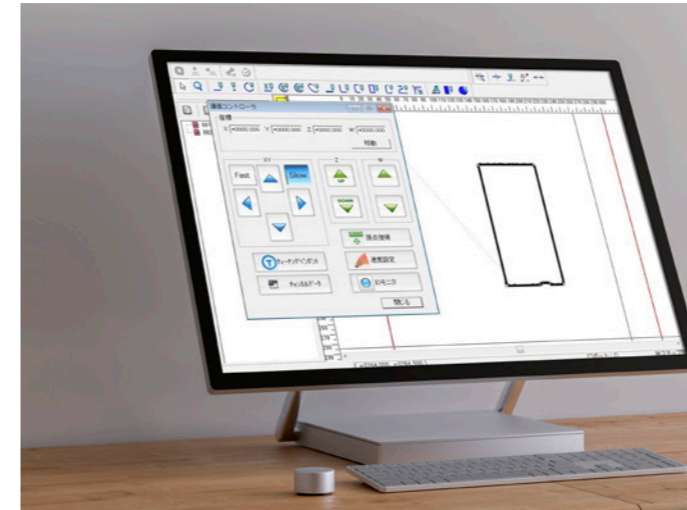
### Key benefits of Bostik **Born2Bond™ UV-CIPG** Solutions



Bostik **Born2Bond™** UV-CIPG Solutions can be dispensed using all technologies, and Bostik can adjust the formula to cure at a specific wavelength if required.

### Dispensing and curing equipment

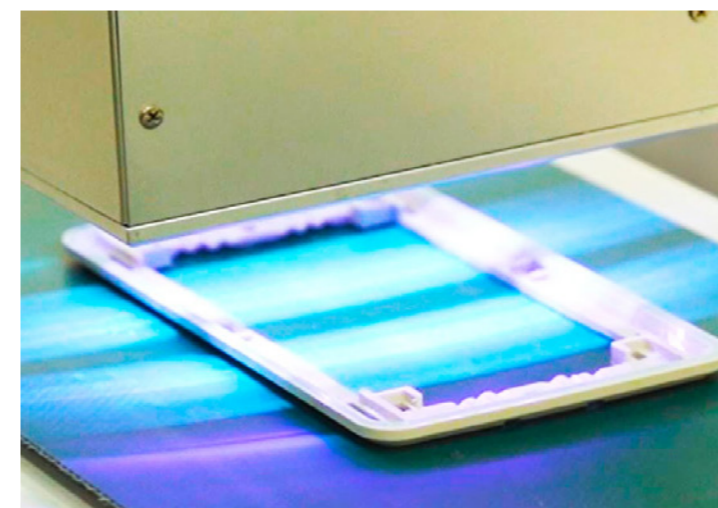
Dispensing Head	Air	Cost effective
		Does not need cleaning
	Mechanical	Precise
		High viscosity
	Jetting	Suitable for ultra-fine dispensing
		Unaffected by irregularities on the substrate
3-Axis Robot	N/A	Can be enabled to dispense automatically
		Can be pre-programmed to dispense in a complex pattern
UV-Curing Device	Metal-halide	Low tackiness at multiple wavelengths
		Quick curing time
		Can be cured completely
	LED	No heating during UV irradiation, therefore no damage
		Affordable and durable



**1.**  
Making a programme  
Design precise application areas



**2.**  
Dispensing UV-CIPG  
Dispense automatically and accurately



**3.**  
Irradiating UV  
Cure immediately with UV light

		AU521C-S3	AU589S	AU589
<b>Applications</b>		Wearable watches, security cameras	Antennas, wearable goods, security cameras	Automotive related components (ECUs, sensors, cameras etc.), ADAS
<b>Properties</b>		Good adhesion to plastic, Good flexibility, Good strength	Good adhesion to metal and plastics, Good flexibility	High durability (high thermal/humidity resistance)
<b>Before cure</b>				
<b>Viscosity @25°C</b>	@0.5 rpm (mPa.s)	1,200,000	868,000	788,000
	@5 rpm (mPa.s)	200,000	163,600	153,600
<b>Thixotropic index (Vis 0.5 rpm / 5 rpm)</b>		6.0	5.3	5.1
<b>Color</b>		Blue	Blue	Blue
<b>After cure (metal halide lamp (UV-A: 4,000mJ/cm<sup>2</sup>))</b>				
<b>Hardness @23°C</b>	Shore A	20	10	12
	Shore 00	80	65	63
<b>Film properties @23°C</b>	Strength (mPa)	5.6	1.9	0.8
	Elongation (%)	2100	863	480
<b>Compression set* (70°Cx22h)</b>	25% compression (%)	18	15	-
	50% compression (%)	19	15	6
<b>Compression set* (125°Cx24h)</b>	50% compression (%)	-	21	8
<b>Durability</b>	85°C 95%RH	200h	500h	1000h
	120°C	-	1000h	2000h
<b>Application temperature</b>		-40°C to 100°C	-40°C to 100°C	-40°C to 120°C
<b>Shelf life</b>		4 months	10 months	10 months

\*ASTM D395 or JIS K6262

AU060R	AU589V
Automotive related components (ECUs, sensors, cameras etc.)	Automotive related components (ECUs, sensors, cameras etc.), ADAS
Excellent humidity resistance, Color change before/after curing	High durability (high thermal/humidity resistance)
400,000	788,000
66,000	153,600
6.1	5.1
Color change after curing under UV light (Purple → Dark green)	Color change after curing under UV light (Purple → Dark green)
30	12
-	63
4.0	0.8
400	480
4	-
6	6
-	8
1000h	1000h
-	2000h
-40°C to 120°C	-40°C to 120°C
10 months	10 months

## Why **Born2Bond™** UV-CIPG Solutions?

### INNOVATION

Bostik is leading the way in pioneering materials science. As we expand, diversify and innovate, our lead adhesive technologies evolve with us to address manufacturers' ever-changing needs.

### TECHNOLOGY (SOLUTIONS)

Innovation is in our DNA. We are on a constant quest to find newer and smarter ways of doing things. With our focus on centralised R&D and materials science, our innovation strategy can be broken down into three distinct levels:

- Adhesive research and technology development
- Product development and innovation
- Technical support

### LEADERSHIP

As an industry leader, Bostik understands the macro changes which influence the markets and industry; and provides innovative smart solutions to meet these pressing challenges for electronic and automotive manufacturers.

Bostik's Worldwide Technical Service network of industry and application experts are organised by market segments to bring dedicated support in all process and manufacturing specificities.

Our extensive technologies portfolio and adhesive expertise are at your service to define the best solution for each and every single situation. For more information, please contact Bostik today.



## AU589V

The new **AU589V** gasket solution is the latest innovation in engineering adhesives as part of the company's goal to create smart solutions for Industry 4.0, globally.

**AU589V** is UV reactive and delivers high seal performance and exceptional elasticity. It also offers reliable durability in high-temperature environments and excellent hydrolysis resistance. Its unique balance of high elongation and high tensile strength ensures that it will not crack even when exposed to high compression ratios.

## AU589V Strengths

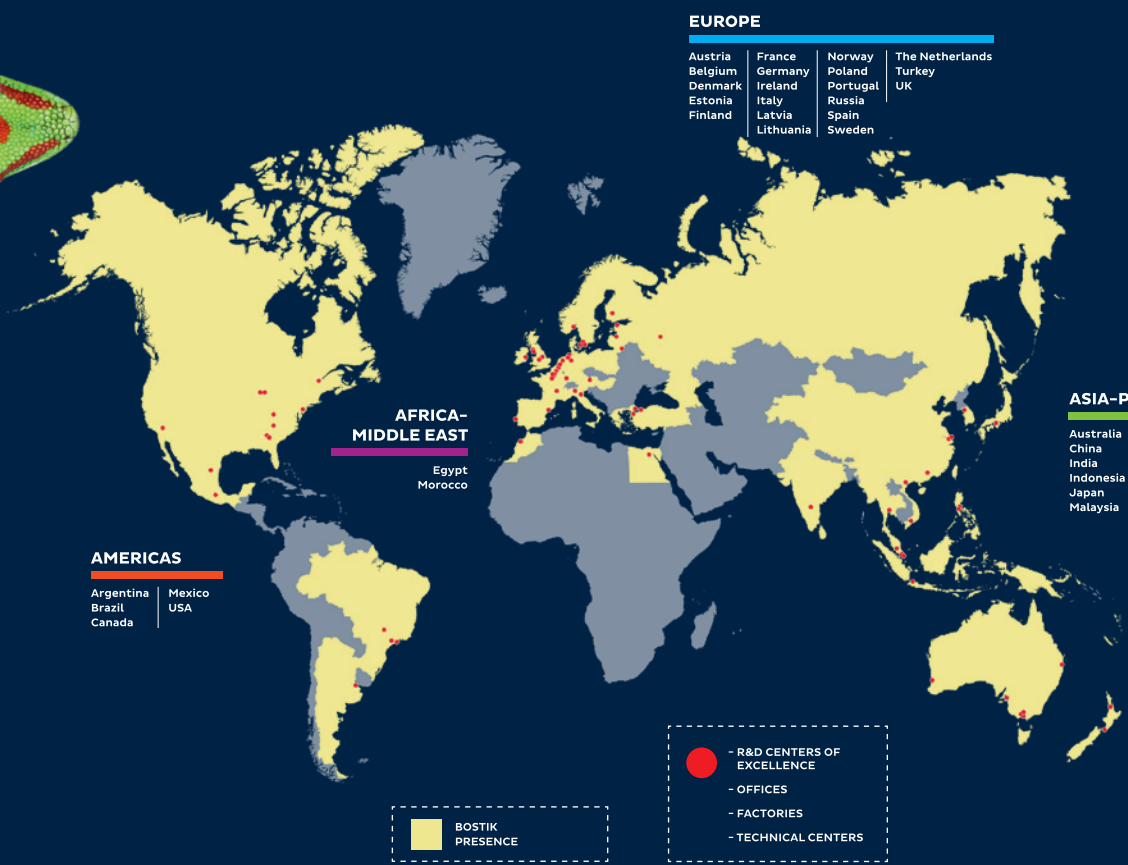
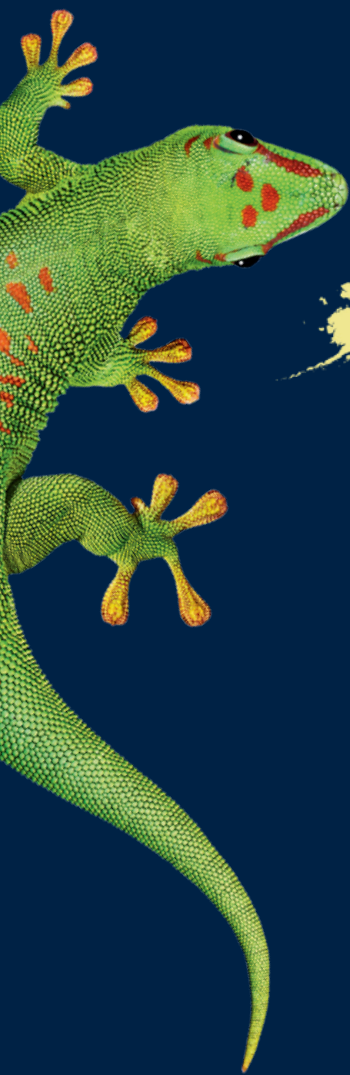
- 1 Soft type
- 2 Can withstand high temperature (up to 125°C)
- 3 Hydrolysis resistance, high humidity resistance (85°C, 95% relative humidity)

AU589V		
<b>Applications</b>	Automotive related components (ECUs, sensors, cameras etc.), ADAS	
<b>Properties</b>	High durability (high thermal/humidity resistance)	
<b>Before cure</b>		
<b>Viscosity @25°C</b>	@0.5 rpm (mPa.s)	788,000
	@5 rpm (mPa.s)	153,600
<b>Thixotropic index (Vis 0.5 rpm / 5 rpm)</b>	5.1	
<b>Color</b>	Color change after curing under UV light (Purple → Dark green)	
<b>After cure (metal halide lamp (UV-A: 4,000mJ/cm<sup>2</sup>))</b>		
<b>Hardness @23°C</b>	Shore A	12
	Shore 00	63
<b>Film properties @23°C</b>	Strength (mPa)	0.8
	Elongation (%)	480
<b>Compression set* (70°Cx22h)</b>	25% Compression (%)	-
	50% Compression (%)	6
<b>Compression set* (125°Cx24h)</b>	50% Compression (%)	8
	85°C 95%RH	1000h
<b>Durability</b>	120°C	2000h
	<b>Application temperature</b>	-40°C to 120°C
<b>Shelf life</b>	10 months	

\*ASTM D395 or JIS K6262

## UV-CIPG Applications





**EUROPE**

- |         |           |          |                 |
|---------|-----------|----------|-----------------|
| Austria | France    | Norway   | The Netherlands |
| Belgium | Germany   | Poland   | Turkey          |
| Denmark | Ireland   | Portugal | UK              |
| Estonia | Italy     | Russia   |                 |
| Finland | Latvia    | Spain    |                 |
|         | Lithuania | Sweden   |                 |

**AFRICA-MIDDLE EAST**

- Egypt
- Morocco

**ASIA-PACIFIC**

- |           |             |
|-----------|-------------|
| Australia | New Zealand |
| China     | Philippines |
| India     | Singapore   |
| Indonesia | South Korea |
| Japan     | Thailand    |
| Malaysia  | Vietnam     |

**AMERICAS**

- |           |        |
|-----------|--------|
| Argentina | Mexico |
| Brazil    | USA    |
| Canada    |        |

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