



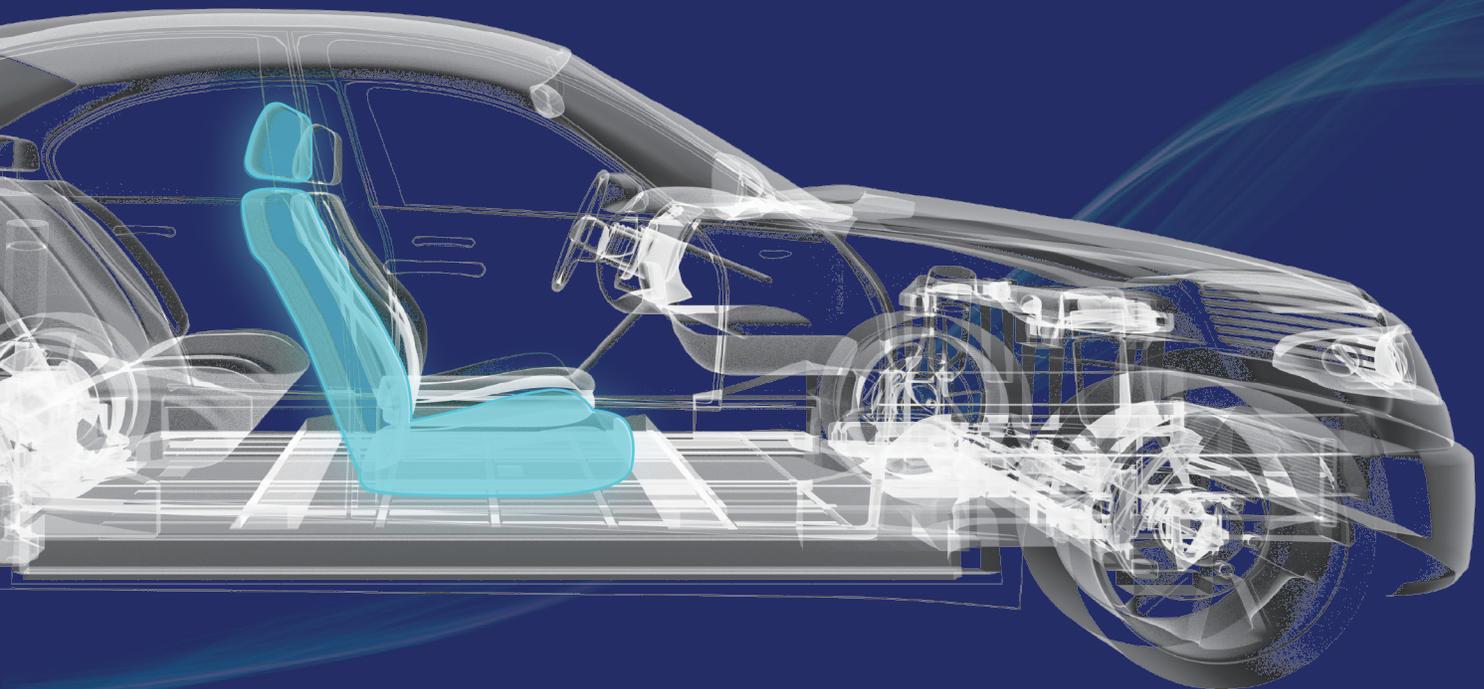
# Automotive Seat System Solutions

**BOSTIK ENHANCING YOUR WORLD  
WITH SMART ADHESIVE SOLUTIONS**

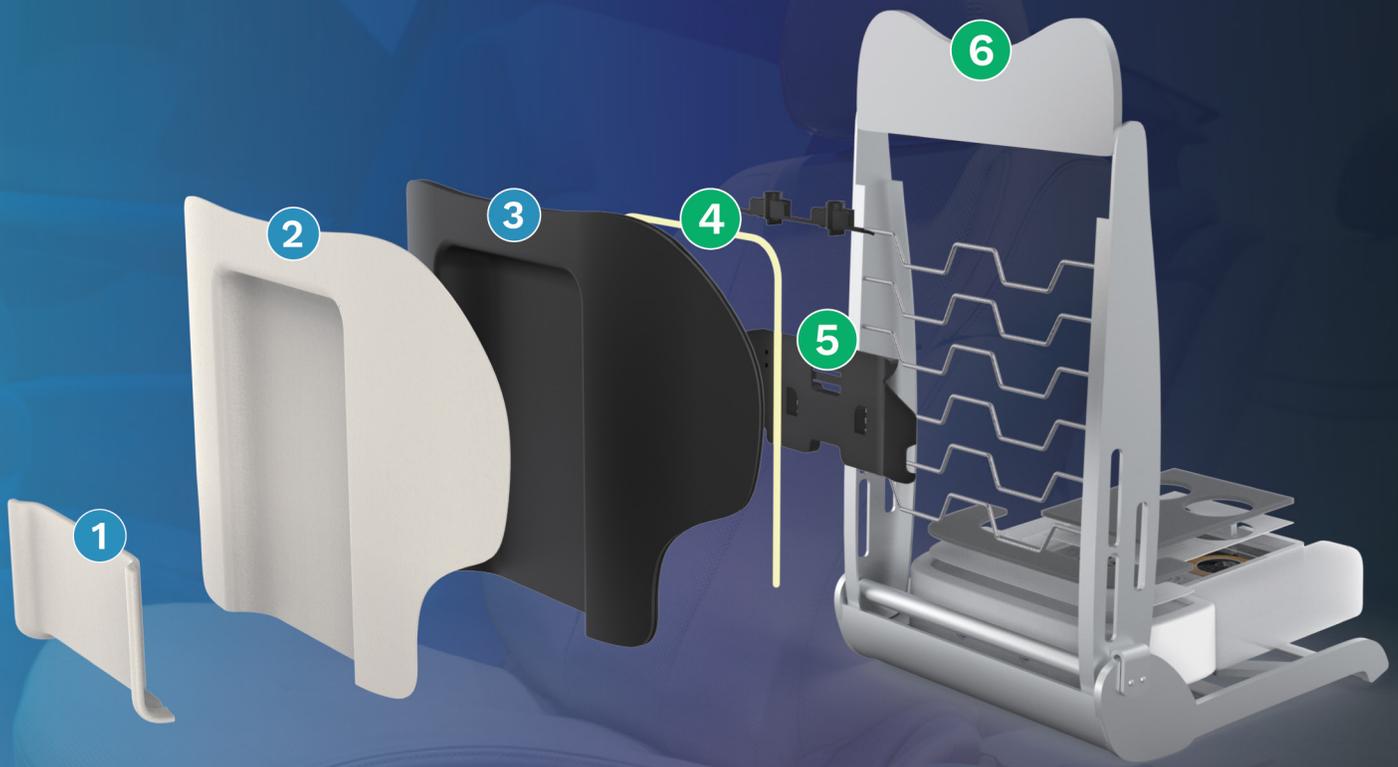


# Bostik smart adhesive solutions in seat system

As we speed towards the future, smart systems are being incorporated into every aspect of our lives, one of which is mobility. Automotive designers are looking at emerging trends and technologies that are passenger focused. In the effort to create smarter seats, seating innovations are centered on adjustment settings and sourcing premium materials for more pleasant and luxurious drives.



Bostik, as part of the Arkema group, is a leading global adhesive specialist in construction, consumer, and industrial markets. We work in partnership with our customers in mobility, understanding their specific requirements to develop innovative adhesive solutions that are environmentally friendly while enhancing aesthetics and comfort. Our durable smart adhesives meet the most stringent of application requirements thus increasing their operational efficiencies. Bostik adhesive solutions for mobility has a broad product portfolio with a wide range of technologies that address various applications for seats assembly, from textile lamination, bonding foam to foam, metal to metal bonding to integration to heating system. Such versatility ensures that every part of the seat system is integrated smoothly and cohesively for a finished product that is elegant and comfortable.



## In seat system assembly



### LAMINATION SOLUTION TECHNOLOGY

1-3

1 Map pocket

2 Leather lamination

3 Seat back

- Amorphous Polyolefin (APAO) Hot Melt
- Polyurethane Reactive (PUR) Hot Melt
- Water-Based Liquid Adhesives
- Solvent-Based Liquid Adhesives
- Polyamide Specialty Hot Melt
- Polyester Specialty Hot Melt



### STRUCTURAL SOLUTION TECHNOLOGY

4-6

4 Ambient lighting

5 Back plate holder

6 Structural frame

- SMP Semi-structural Sealant (SMP)
- Pliogrip™ 2K Polyurethane
- Pliogrip™ 2K Epoxy
- Methyl Methacrylate (MMA)

# Bostik seat system solution

## Value creation for customers



### LAMINATION SMART SOLUTIONS IN SEAT SYSTEM

#### 1. APAO Hot Melt Technology

- Solvent-free, 100% solids
- Low odor
- Various open times
- Excellent bonding performance for LSE substrates, no treatment required
- Clear production and high safety performance
- Suited for automated production

#### 2. PUR Hot Melt Technology

- Excellent high temperature resistance
- Strong bonding performance
- Various open times
- Rapid crystallization after cooling
- Suited for automated production

#### 3. Water-Based Technology

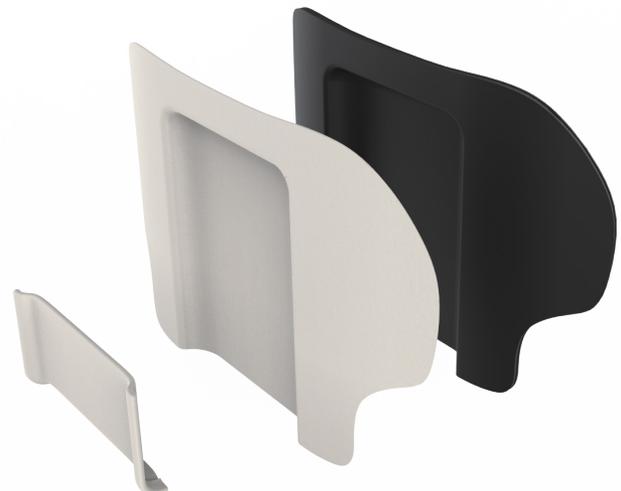
- Solvent-free
- High initial strength
- Excellent temperature resistance
- Low activation temperature
- Long work time
- Excellent bonding performance for LSE substrates, no treatment required

#### 4. Solvent-Based Technology

- Low viscosity
- High green strength
- Low activation temperature
- Excellent temperature resistance
- Excellent leather and PVC bonding

#### 5. Specialty Hot Melt Technology

- Includes web, film, powder, and granule technology forms
- Multiple chemistries available (PA, PES, PU, PE, PP, EVA)
- Highly conformable to seat manufacturing designs
- Potential wrinkle-free finishings on leather substrates
- Range of breathability, perforation, and vapor permeability



# Bostik seat system solution

## Value creation for customers



### STRUCTURAL BONDING SOLUTIONS IN SEAT SYSTEM

#### 1. Pliogrip™ 2K PUR Technology

- Solvent-free
- Low odor
- Various open times
- Excellent bonding performance to multiple substrates
- High safety performance
- Suited for automated production

#### 2. MMA Technology

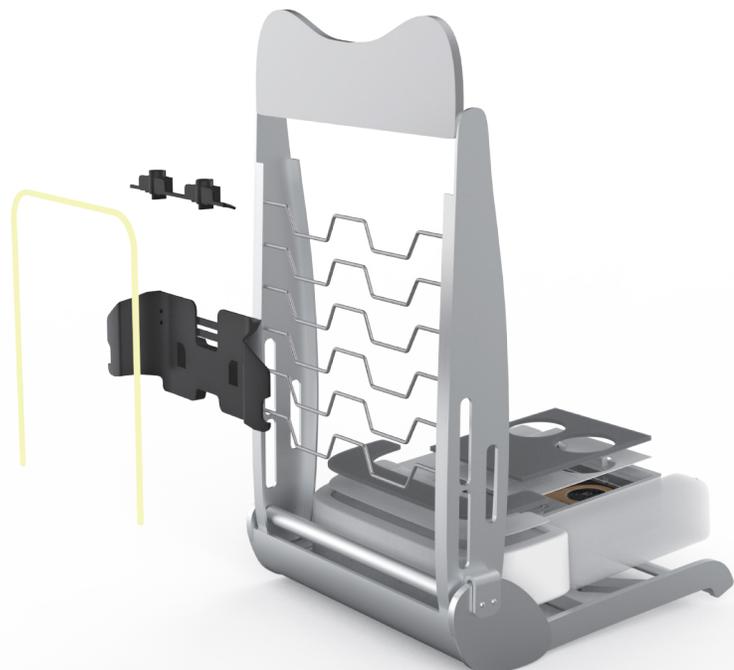
- Permanent durability even after aging
- Metal bonding
- High elongation and impact resistance
- Non-sag application on vertical surfaces
- Excellent impact resistance
- Fast curing

#### 3. Pliogrip™ 2k Epoxy

- Metal bonding
- Various open times
- Excellent temperature resistance
- Excellent bonding performance to multiple substrates
- Long work time

#### 4. SMP Technology

- Solvent-free, 0% isocyanate
- High flame retardancy
- Strong grab glazing and bonding
- Excellent bonding performance to multiple substrates
- High environmental resistance
- Reduces assembly steps



# Bostik seat system solution

## Technology overview



### Lamination

		Standard Hot Melt		Specialty Hot Melt		Liquid	
		APAO Hot Melt	PUR Hot Melt	Polyamide	Polyester	Water-Based	Solvent-Based
Properties	Technology	1k	1k	1K	1K	1k/2k	1k
	Application Temperature	Heat	Heat	Heat	Heat	RT	RT
	Open Time	Short	Variable	Short	Short	Variable	Short
	Cure Mechanism	Thermoplastic	Thermoplastic & Moisture Cure	Thermoplastic	Thermoplastic	Crystallization/ Crosslinking	Crosslinking
	Fixture and Cure Time	Fast Fixture	*Fast Fixture	Fast Fixture	Fast Fixture	72H	48H
	Bond Strength	Good	Very Good	Very Good	Good	Very Good	Very Good
	Flexibility	Good	Very Good	Good	Very Good	Very Good	Good
	Temperature Resistance	Very Good	Excellent	Excellent	Very Good	Very Good	Very Good
	Application Methods	Roll coat, knife coat, bead, swirl spray	Roll coat, knife coat, bead, slot die	Roll coat, knife coat, bead, swirl spray	Roll coat, knife coat, bead, swirl spray	Roll coat, spray, brush coat	Roll coat, spray, brush coat
Substrate Compatibility	PP	+++	+	+	+	+++	++
	ABS	+	+	++	+	+	++
	PU	++	++	+	+	+	+
	PVC	+	+++	++	++	++	+++
	Leather	+	++	+++	+	++	++

\*Good green strength, builds strength over 7 days via moisture cure

# Bostik seat system solution Technology overview



## Substrate Compatibility

		SMP	Pliogrip™ 2k PUR	MMA	Pliogrip™ 2k Epoxy
Properties	Technology	1K/2K	2K	2K	2K
	Application Temperature	RT	RT or Heat	RT	RT
	Open Time	Variable	Variable	Variable	Variable
	Cure Mechanism	Moisture Cure	Reactive	Reactive	Reactive
	Fixture and Cure Time	Moisture Accelerated	Heat Accelerated	Fast Fixture	Heat Accelerated
	Bond Strength	Good	Very Good	Very Good	Excellent
	Flexibility	Excellent	Very Good	Good	Moderate
	Temperature Resistance	Good	Very Good	Very Good	Excellent
Substrate Compatibility	PA	+	+++	+	++
	PC	+	++	+	+
	Aluminum	++	++	+++	+
	Steel	++	+++	++	++
	SMC	+	+++	+	+++

Ready to create smart seat system solutions?

[Contact a Bostik expert](#) to find the right adhesive solution for you!



# BOSTIK

## **IMPORTANT – PLEASE READ BEFORE USING THIS BROCHURE TERMS & CONDITIONS**

Bostik offers this Brochure for descriptive and informational use only. The Brochure is not a contract and is not a substitute for expert or professional advice.

The statements, technical information, data, and recommendations contained herein are not exhaustive, are believed to be accurate as of the date hereof, and are not warranted in any way. The Brochure relies upon your knowledge and input, and as such, its results are based solely upon the information you provide and the choices that you make. Since the conditions and methods of use of the products and the information referred to herein are beyond our control, Bostik expressly disclaims any and all liability and damages that may arise from any use of the Brochure, the products, the results therefrom, or reliance on the information contain herein, and you hereby agree to waive any and all claims against Bostik relating in anyway thereto.

The Brochure is one of several tools that may be used to help you find the product best suited for your needs. It is used at your own risk, and by using it, you are knowingly accepting and assuming any and all risks associated with its use, recommendations, output and your selections. You are responsible to test the suitability of any product in advance for any intended use. Bostik does not guarantee the reliability, completeness, use, or function of the Brochure or any recommendations arising therefrom. The data and information are provided 'AS IS'.

The information provided herein relates only to the specific products designated and may not be applicable when such products are used in combination with other materials or in any process. Bostik encourages you to read and understand the Technical Data Sheet and the Safety Data Sheet for all products, which are located on our corporate website.

NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR WARRANTY OF MERCHANTABILITY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE PRODUCTS DESCRIBED OR THE INFORMATION PROVIDED HEREIN, AND SUCH WARRANTIES ARE HEREBY DISCLAIMED. Bostik disclaims any liability for direct, incidental, consequential, or special damages to the maximum extent allowed by law. Nothing contained herein constitutes a license to practice under any patent, and it should not be construed as an inducement to infringe any patent. You are advised to take appropriate steps to be sure that any proposed use of the products will not result in patent infringement.

**By using this Brochure, you are hereby consenting to the above terms and conditions of use, and you agree to waive certain rights as set forth above.**

05.17.23

©2023 Bostik. All rights reserved.

Adhesive solutions by **ARKEMA**