Achieving New Heights

SMART ADHESIVES FOR AIRCRAFT INTERIORS
Bostik is committed to partnering with aerospace manufacturers to achieve the perfect bond for their unique applications. With in-house research and development resources and deep knowledge of the challenges facing the industry, Bostik can custom formulate an adhesive solution that meets a customer's specific need. Bostik's broad and diverse adhesive technology portfolio provides versatility in our approach.

The Bostik Difference

Bostik aerospace adhesive systems are engineered for strength, durability, safety. Our adhesives satisfy the demands of aerospace manufacturers for elasticity, torsional stiffness, temperature and environmental resistance, adhesion to dissimilar materials, and minimal surface preparation. Bostik is world-renowned in aerospace for our fire retardant adhesives. We partner with our customers to drive innovation in bonding technology while satisfying increasingly demanding FST (flame, smoke, and toxicity) requirements facing the industry.

Our products are used regularly in aircraft manufacturing, primarily in nonstructural applications: interior wall panels, floors, doors, seats and even in decorative fixtures and laminates. Flame retardant film adhesives and heat-seal coatings are used to produce decorative laminates for aircraft interiors, as well as thermal and acoustical insulation systems. Bostik manufactures film adhesives using a broad range of raw materials.

Bostik's solvent-based liquid adhesives are designed for use in aerospace interior applications such as vacuum form bonding of PVC films to wood, fiberboards, and most porous substrates. In addition to securing strong resilient anchorage to PVC, Bostik's liquid adhesives bond all types of polyolefin foams, polyester films, most plastic laminating films, foils, sheet metal surfaces and cellulosics. These adhesives, which can be applied as primers and sealants throughout the aircraft, can also be provided with fire retardant packages to meet the most demanding aircraft and industrial FST requirements.

Bostik adhesives enable aircraft manufacturers to reach new heights in strength, safety and reliability.

Smart Solutions

THROUGH CUSTOM FORMULATION

Bostik is committed to partnering with aerospace manufacturers to achieve the perfect bond for their unique applications. With in-house research and development resources and deep knowledge of the challenges facing the industry, Bostik can custom formulate an adhesive solution that meets a customer's specific need. Bostik's broad and diverse adhesive technology portfolio provides versatility in our approach.
Adhesive Options

**What are FILM ADHESIVES?**
Film adhesives are adhesives that form a thin flexible layer, which can be heat activated or pressure sensitive for various applications. Bostik has 30 years of experience with solvent cast films for aerospace applications. Our products help control consistency in applications from usage variance to repeatable performance characteristics.

**What are LIQUID ADHESIVES?**
Bostik produces a wide range of liquid adhesives, from water-based technologies to solvent-based flame retardant systems. Bostik liquid adhesive systems lead the Aerospace Industry in interior adhesives, offering versatility and scale for any size application.

**What are WEB ADHESIVES?**
Web adhesives are hot melt adhesives converted into a web-like film that handles like fabric. Web adhesives from Bostik can increase productivity, offer low environmental impact, make better utilization of plant space, increase product shelf life and save on energy and operating costs. Webs offer consistent usage control while optimizing weight to performance criteria. All Bostik web adhesives are VOC free, simplifying processes and providing a safer alternative for adhesion.
What is **ELASTIC BONDING**?
Elastic bonding adhesives provide a flexible joint or seal that bonds individual components to a structural frame, allowing a dynamic attachment, which allows expansion and contraction while maintaining bond integrity. Elastic bonds are extremely durable, making them ideal for applications where a higher-temperature structural bond would break under continuous movement and stress.

What is **FLAME RETARDANCY**?
Flame retardant adhesives inhibit the spread of flame. They aid aerospace occupant safety by reducing fire, smoke and toxic fumes, allowing aerospace passengers a greater span of time to exit a high-danger situation.

What is **PRESSURE SENSITIVE ADHESION**?
Commonly known as a PSA, pressure sensitive adhesives offer a wide range of adhesion on many different substrates. From permanent bonds to removable adhesion, PSAs are a great choice for bonding panels, fabrics, foam and other interior products.

What are **LIGHTWEIGHT SOLUTIONS**?
Lightweight solutions from Bostik are essential for modern construction methods. Reducing weight in transportation vehicles translates into fuel savings and a lower overall impact on the environment. Bostik adhesives offer lightweight solutions specifically formulated to decrease weight yet provide strong, lasting bonds that keep transportation moving.
**ATTACHMENT ADHESIVES**
Attachment adhesives are film or liquid adhesives options chosen by tier manufacturers, giving their components a peel and stick feature for easy interior assembly and installation.
- F14-552 | F14-554 | F14-610
- LADH7527FR | LADH7560FR | LADH7590

**MOUNTING ADHESIVES**
Mounting adhesives are used to provide immediate bond to substrates upon contact and are used throughout the plane in various interior applications. These adhesives, although traditionally thought of as liquids, can also be provided as pre-applied pressure sensitive adhesive films.
- F14-552 | F14-554 | F14-588 | FPA110-1FR
- L1096MR | L4145-14H | L4145-30H | L7132K
- L7132R | L1685MC | LADH1531AC

**EMBOSSING RESINS**
Embossing resins provide the textured aesthetic to interior panels, bonding layers of low surface energy materials together to prevent marking, stains, and graffiti. Embossing resins can be thermoset or thermoplastic as well as reinforced with fiberglass to further improve durability in use.
- F10-634 | F10-250

**HEAT SEAL ADHESIVES**
Some aerospace applications use assembly processes that require quick sealing of edges or parts with heat. Heat seal adhesives are typically coated onto those substrates and activated with heat later in the assembly process to ensure a quick, effective seal.
- FPA110-FR1
- LADH300 | LADH7350

**LAMINATING ADHESIVES**
Laminating adhesives are used primarily for textile and fabric applications to adhere layered constructions together. Seating upholstery, decorative trims and cushions are common applications that use laminate adhesives.
- FPA110-1FR
- PE85 | PE130 | PE120 | PE165 | SPA110 | PA115
- PA145 | SH4275FR-A | SPA145FR-A

**SKIN TO CORE COMPOSITES**
Composite panels are comprised of a core material, typically honeycomb or foam core construction, sandwiched between two outer skins. These skins can come in a variety of formats, from prepreg to decorative skins. Bostik products act as a tie layer between these substrates.
- FPA110-1FR | F10-250 | F10-316
- PE120 | SH4275 | SH4275FR-A | SPA145FR-A

**ADHESIVE TYPE**
- Film Adhesive
- Liquid Adhesive
- Web Adhesive
Film Adhesives

APPLICATIONS
Embossing Decorative Laminates | Decorative Laminate Mounting | Skin to Core Composite Assembly

HEAT ACTIVATED FILM ADHESIVES

FLAME RETARDANT THERMOSET
NON FLAME RETARDANT THERMOSET
FLAME RETARDANT THERMOPLASTIC

Bostik heat activated films, are thin, non-tacky solvent cast films, which allow for ease of handling and positioning prior to assembly, with thicknesses ranging from 1 to 3 mils. The adhesive is activated with heat at the desired time to bond substrates together.

PRESSURE SENSITIVE FILM ADHESIVES

FLAME RETARDANT
NON FLAME RETARDANT

Bostik pressure sensitive films are produced using our solvent cast process, with thicknesses ranging from 1 to 3 mils. Pressure sensitive films are ideal for pre-applied applications enabling peel and stick functionality.

SUBSTRATE COMPATIBILITY

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Liquid Adhesives

Applications

Decorative Laminate Mounting | Decorative Laminate Edge Wrapping | Hook and Loop Attachment | Honeycomb Core Splicing | Insulation and HVAC | General Bonding

Mounting Adhesives

Bostik’s mounting adhesives are liquid, solvent-based adhesives that are either one- or two-part systems. They are ideal for general bonding of a large surface area or when clamping is difficult. Mounting adhesives adhere to themselves and can be applied with a spray or brush application. These adhesives are used by applying an even coat of the adhesive to each substrate, allowing it to dry, and mating the two substrates together.

Heat Seal Adhesives

Heat Seal adhesives are liquid, solvent-based adhesives that are typically roll coat applied. The adhesive is dried and then laminated at elevated temperatures to form the heat seal.

Primers

Bostik’s primer is designed to enhance the adhesive anchorage to metal, plastic, glass, wood, concrete and many other rigid and semi-rigid surfaces where adhesion can be difficult. It is applied to the substrate as a pretreatment to the adhesive application.

Pressure Sensitive Adhesives

Bostik’s pressure sensitive liquid adhesives are self-crosslinking, solvent-based, acrylic adhesives. When dried at elevated temperatures, these adhesives form a crosslinked network that is capable of forming a bond when pressure is applied.

Substrate Compatibility

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<th>PRODUCT</th>
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Web Adhesives

APPLICATIONS
Composites: Bonding to Skin | Composites: Lay-Up Aids
Composites: Skin to Core | Decoratives (Heat Activated)
Heat Seal | Layered Laminates | Seating: Foam to Cover

FLAME RETARDANT WEBS
Bostik FR web adhesives are flame retardant, hot-melt adhesives converted into a thin web-like film. The weight of the web can be varied between 12 - 60 grams per square yard. These products offer superior adhesive usage control to manufacturers, preventing over-spray and waste from spray and film applications.

SH4275FR-A
ACTIVATION TEMPERATURE
265°F / 130°C

SPA145FR
ACTIVATION TEMPERATURE
293°F / 145°C

NON FLAME RETARDANT WEBS
Bostik web adhesives offer the same usage control advantages to manufacturers as the flame retardant webs, without the flame retardancy for less stringent applications. The weight of the web can be varied between 12 - 100 grams per square yard.

PE85
ACTIVATION TEMPERATURE
200°F / 93°C

PE103
ACTIVATION TEMPERATURE
220°F / 105°C

PE120
ACTIVATION TEMPERATURE
284°F / 140°C

PE165
ACTIVATION TEMPERATURE
350°F / 177°C

POLYESTER ADHESIVE WEBS

POLYAMIDE ADHESIVE WEBS

SUBSTRATE COMPATIBILITY

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