

3M Science.
Applied to Life.™

3M Automotive and Aerospace Solutions Division

Interior Adhesive Solutions

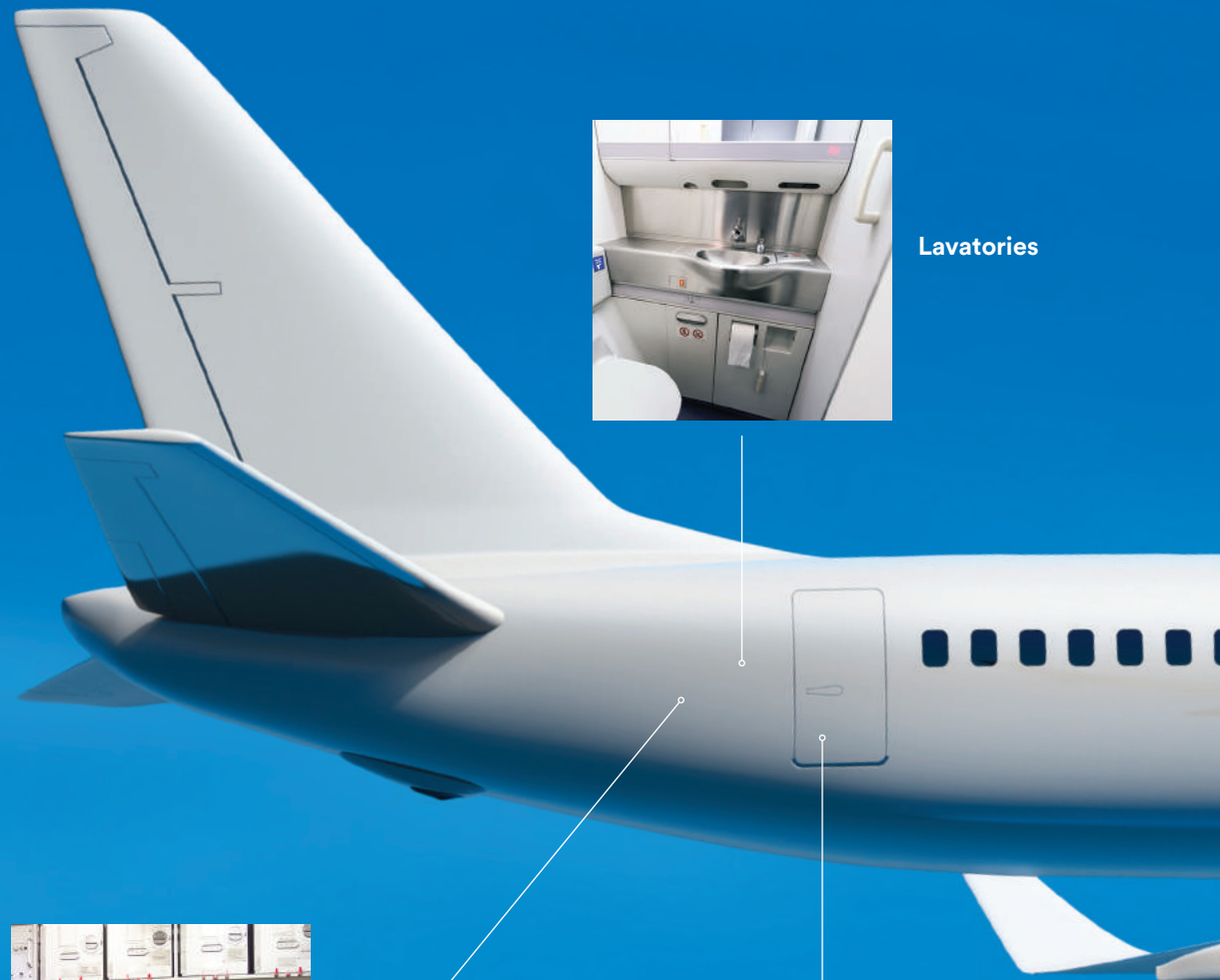
Meet OEM specifications and aviation regulations with weight-saving, time-saving, strong-bonding interior solutions.



Solutions designed to fit your process.

Streamline operation. Win more OEM contracts. Find bonding solutions for all parts of an aircraft interior — plus the equipment to use them. Evolved from an ongoing collaboration between 3M scientists and OEM engineers, our adhesive solutions deliver exceptional mechanical performance, low density, optimal mixing, flexible cure times and exceptional durability.

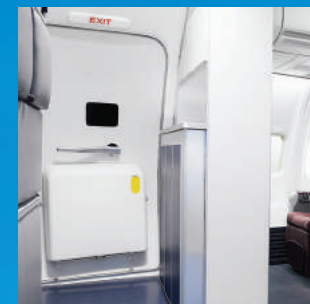
- ▶ Meet the demanding requirements for quality, safety and weight
- ▶ Comply with FAA and EASA regulations
- ▶ Designed with REACH and RoHS compliance in mind
- ▶ Stored, applied and cured at room temperature
- ▶ Lead time is as little as 30 days
- ▶ Pumpable solutions fit within automated manufacturing
- ▶ Help reduce cycle time and manufacturing costs
- ▶ Global supply chain



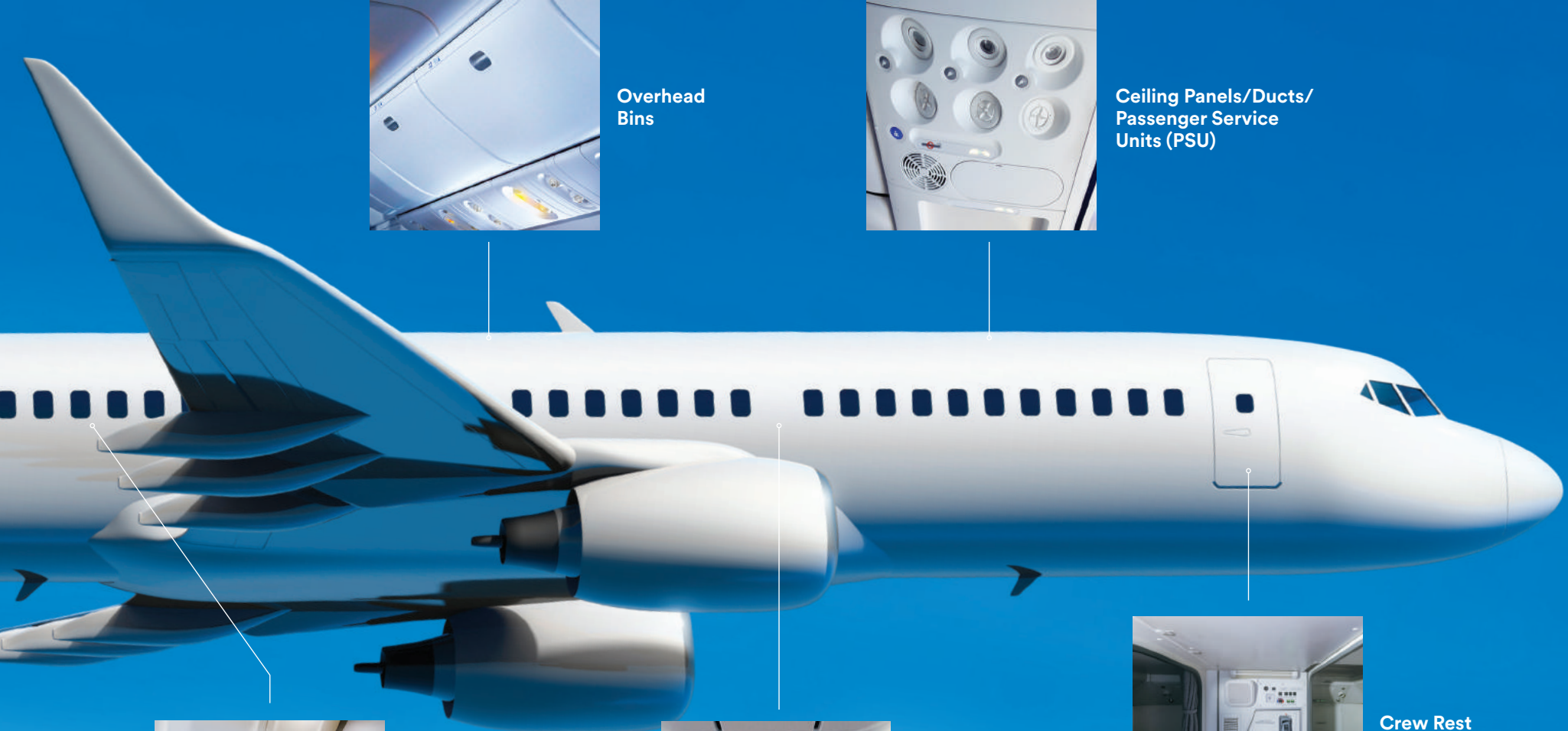
Lavatories



Galleys



Doors, Class Dividers and Sidewalls



Overhead Bins



**Ceiling Panels/Ducts/
Passenger Service
Units (PSU)**



**Seats/Cup
Holders/
Sidewall Panels**



Monuments



**Crew Rest
Areas**

Spend more time building and less time filling.



3M™ Edge and Void Fillers

Pump up productivity. Designed for filling mismatched areas and voids and reinforcing edges, 3M pumpable edge and void filling compounds combine high strength with industry-leading low density.

- ▶ Fully automated mixing and pumping for accelerated application process
- ▶ Lightweight compounds with a variety of cure speeds and compressive strengths
- ▶ Non-brittle property minimizes chipping and allows insert placement
- ▶ Non-sag property reduces touch-ups and rework
- ▶ FR and FST options

Density



As low as
0.44
g/cm³

Featured Products

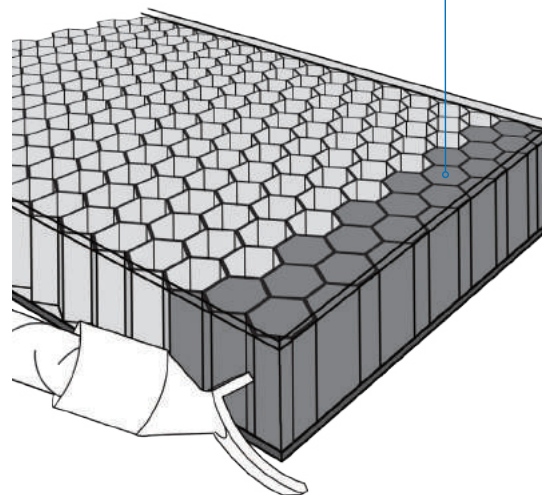
3M™ Scotch-Weld™ EC-3505 B/A FR

- ▶ Lightest machine-dispensable product available
- ▶ Industry-leading combination of 0.44 g/cm³ density with 2200 psi compression strength
- ▶ Worklife: 60 minutes at room temperature

3M™ Scotch-Weld™ EC-3550 B/A FR & 3M™ Scotch-Weld™ EC-3555 B/A FST

- ▶ Meets FST Airbus Requirement, ABD-0031
- ▶ 0.58 g/cm³ density with 3500 psi compressive strength where higher strength is required
- ▶ Worklife: 120 minutes (EC-3550) and 60 minutes (EC-3555) at room temperature

Fill and reinforce
honeycomb edges

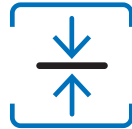


Build lighter, stronger panels with less labor.

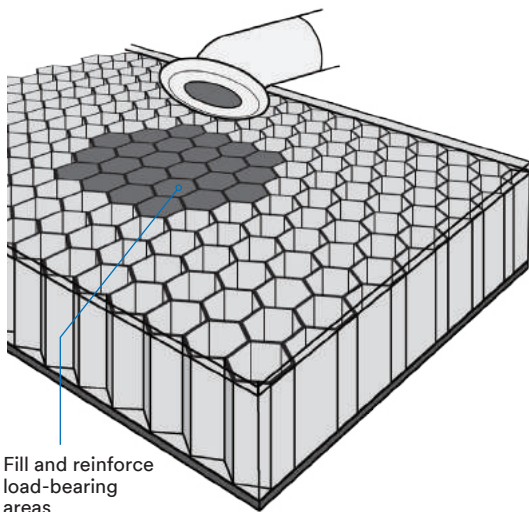
3M™ Core Reinforcement

Reinforce honeycomb and sandwich structures in load-bearing areas, such as overhead storage compartments, partition walls, ceiling panels, galley and lavatory. Our pumpable solutions save production time and labor costs — simply place cartridge in dispenser, add a nozzle and apply.

- ▶ Low density reduces weight of cabin furnishing
- ▶ Fully pumpable and automated for less hand work
- ▶ Fast cure at room temperature improves efficiency
- ▶ Moisture barrier and vibration dampener
- ▶ High compressive strength
- ▶ Designed to help users minimize their impact on the environment
- ▶ Thixotropic properties offer controlled flow and self leveling



**High
compressive
strength**



Featured Product

3M™ Scotch-Weld™ EC-3500 B/A

- ▶ Superior compressive strength of 6000 psi with only 0.64 g/cm³ density
- ▶ Long work life
- ▶ Cure cycle 250°F to 350°F (121°C to 177°C) for 1 hour with a 10°F (-12°C)/minute warm-up rate
- ▶ Excellent performance over a wide temp range of -67°F to 350°F (-55°C to 177°C)





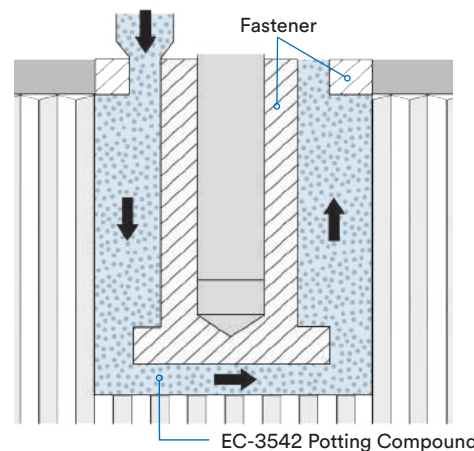
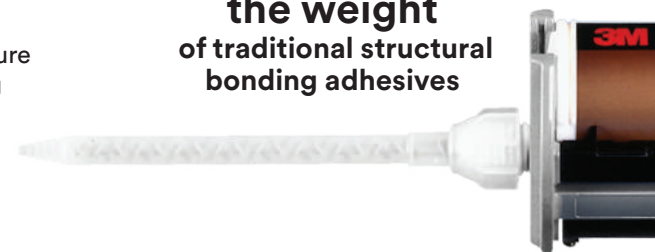
Meet strength requirements with half the weight.

3M™ Potting Compounds

Need to cut weight from a ship-set? Apply 3M potting compounds, designed with high shear and torque strength, class-leading low density, easy flow for easy application and fast cure times. Our 3M glass bubble technology reduces weight, delivers high strength-to-weight ratio and has a consistent fast flow through dispensers. Easy-to-handle viscosity and fully pumpable systems save time and improve operational efficiency.

- ▶ Attach panel inserts quickly, consistently and securely
- ▶ Low viscosity enables extruding and pumping with automated dispensing equipment
- ▶ Fast cure at room temperature yields higher manufacturing throughput
- ▶ Advanced formulation results in consistent density during both storage and automated pumping

1/2
the weight
of traditional structural
bonding adhesives



Featured Product

3M™ Scotch-Weld™ EC-3542 B/A FR

- ▶ High torque resistance
- ▶ Low sag formulation makes it a great option for edge casting applications
- ▶ FR compliant

The perfect cure for your operation.

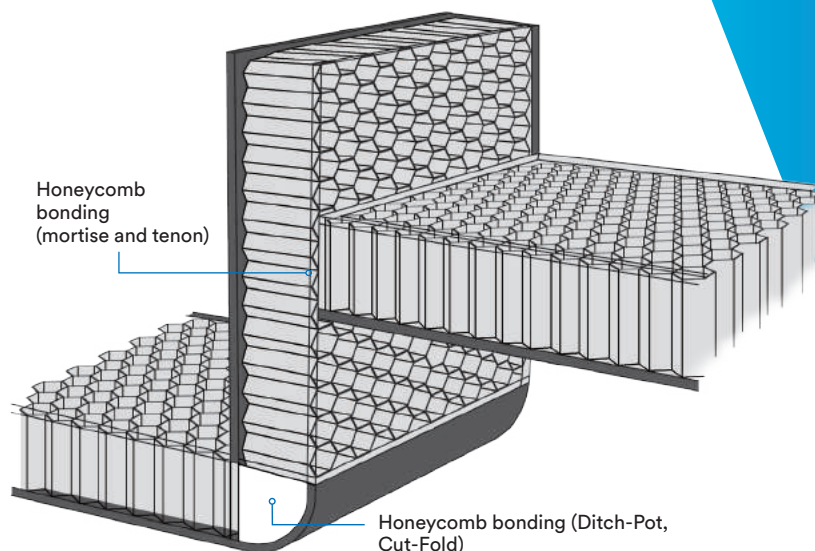
3M™ Honeycomb Bonding

There can be no compromise when it comes to reliability. 3M honeycomb bonding solutions stand up to challenging conditions and offer operational flexibility, with work lives as short as 4 minutes or as long as 5 hours. Superior mechanical properties allow you to achieve high durability and light-weighting goals. These proven adhesives answer the demand for strength while enabling more compact and lightweight designs.

4 to 5
min. hrs.
work life

Operational flexibility

- ▶ Maximum shear, compressive and peel strength, based on your design and process parameters
- ▶ Fast to moderate handling strength time offers operational flexibility
- ▶ Highly durable to help provide high impact resistance
- ▶ Cure at room temperature
- ▶ Thixotropic properties offer controlled flow and sag
- ▶ FR and FST options



Featured Products

3M™ Scotch-Weld™ EC-2615 B/A

- ▶ Excellent for low temperature/cryogenic applications
- ▶ Resistant to extreme shock, vibration and flexing
- ▶ Available in translucent and gray color

3M™ Scotch-Weld™ EC-3531 B/A FR

- ▶ Great choice for metal-to-metal bonding and fillet bonding
- ▶ Fast handling strength (10 to 20 minutes)
- ▶ Suitable when moderate mechanical strength is required

3M™ Scotch-Weld™ EC-7256 B/A

- ▶ Combines high mechanical strength with excellent durability
- ▶ Rapid cure at room temperature
- ▶ Good adhesion to a wide variety of materials

3M™ Scotch-Weld™ EC-9300 B/A FST

- ▶ Best choice for ditch and pot applications
- ▶ Excellent chemical and aging resistance
- ▶ Airbus ABD-0031 compliant

3M™ Scotch-Weld™ EC-2815 B/A FR

- ▶ Excellent where maximum mechanical strength is required, such as overhead luggage bins, stowage panels and monuments
- ▶ 5000 psi OLS strength with 60 minutes work-life.
- ▶ Excellent sag resistance for vertical applications

3M™ Scotch-Weld™ EC-3542 B/A FR

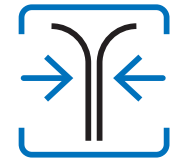
- ▶ Fast flow and strong mechanical performance make panel forming application easy
- ▶ Suitable when low density and moderate shear strength are required
- ▶ Low sag formulation offers a great option for edge casting applications

The easy solution for hard-to-bond surfaces.

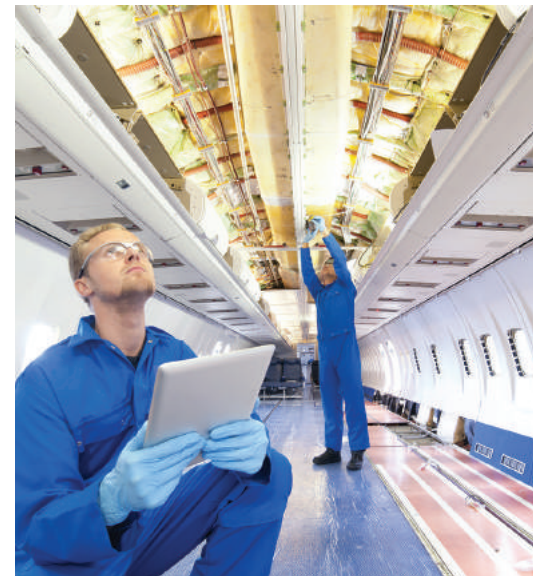
3M™ Thermoplastic Bonding

For bonding challenging materials together, this is a game changer. It's perfect for glass-phenolic composites and thermoplastic materials, including Polycarbonate (PC), Polyphenyl Sulfone (PPSU), Polyether Imide (PEI) and Acrylic-PVC. Use on tray tables, seat back covers, international first-class surrounds and more.

- ▶ Designed for interior substrates, such as glass-phenolic composites, aluminum and hard-to-bond thermoplastics
- ▶ Can be used on metal and composite surfaces
- ▶ Very low sag formulation delivers controlled flow for vertical applications
- ▶ FST compliant



Bonds
hard-to-bond
surfaces



Featured Product

3M™ Scotch-Weld™ EC-7246-2 B/A FST

- ▶ Available in duo-pack cartridges or in bulk for machine dispensing
- ▶ Flow control for vertical applications
- ▶ Not formulated with Antimony-Trioxide

Give private jets a first-class finish in minutes.

3M™ Decorative Bonding

Need to bond wood veneers for an executive finish? Our durable bonding solution holds strongly and dries quickly in many different environments, including high temperatures.

- ▶ Bond in 20 minutes or less
- ▶ Can also be used for bonding gaskets and attaching de-icing boots
- ▶ High strength and temperature resistance
- ▶ Creates an even, consistent adhesive layer



Quick
dry time

Featured Product

3M™ Scotch-Weld™ Adhesive EC-1357

- ▶ Quick dry time with controlled flow
- ▶ Easily applied by spray, brush or roller to save time
- ▶ FR compliant in configuration

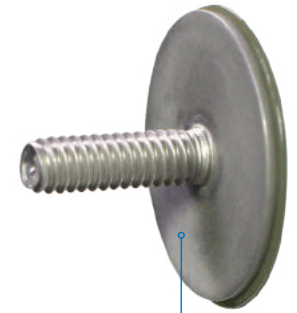


Fewer steps, increased productivity.

3M™ Bracket Bonding

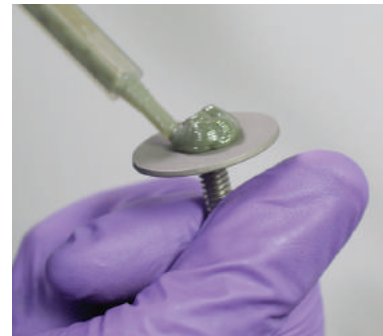
There are thousands of brackets in each airplane. Imagine how much time and money you'll save with a faster, simplified process. Now imagine a revolutionary bracket adhesive that instantly holds — with no installation fixtures, no sag and no mess. Simply apply, bond and go.

- ▶ High green strength significantly reduces the need for installation fixtures
- ▶ Two steps — apply and bond — simplifies your process
- ▶ Low-flow adhesive can be used in vertical and overhead applications



Ideal for bonding fasteners, brackets and pins

STEP 1:
Apply adhesive to bracket



STEP 2:
Bond to desired surface



Go — no support needed

90
minutes cure time
to handling strength



Strong
Excellent shear
and peel strength

Featured Product

**3M™ Scotch-Weld™
EC-7202 B/A**

- ▶ Fast and easy to apply
- ▶ No-sag eliminates support fixtures to reduce waste
- ▶ At room temp, cure time can be accelerated by applying heat
- ▶ High mechanical strength

Get the right applicator for your application.

3M™ Dispensing Solutions

Enhance production rates, reduce rework and get accurate adhesive placement.



Applicators/Dispensers

Our manual and pneumatic applicators:

- ▶ Provide optimal pressure
- ▶ Fit with your work flow
- ▶ Fit product selection for different applications

Mixing Nozzles

Simultaneously mix, meter and dispense 3M™ Scotch-Weld™ Two-Part Structural Adhesives easily and efficiently.

- ▶ Sulzer Mixpac MC 13-12 or MC 13-18 for hand dispensers
- ▶ Sulzer Mixpac MC 13-18 or MC 13-24 for bulk dispensing systems



Automated Systems

Our industry partnerships will help you meet your automation needs with 3M's compatible, pumpable adhesives.

- ▶ Bulk dispensing with operator or CNC/robotic
- ▶ Fluidic PK2D Bulk Dispense Systems
- ▶ Linear Displacement Pump
- ▶ Accommodates bulk 5-gallon product



Custom Dispensing Tips for Automation

Apply the right amount in the right place.

- ▶ Tips for edge fill, honeycomb reinforcement and partial cut filling
- ▶ Reduce time and waste
- ▶ Increase production rate

Global Reach:

Anything you need, anywhere in the world.

- ★ Sales and Marketing
- Aerospace Manufacturing
- Technical Specialist Support

Product Use: Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

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KLEBEN VERBINDET

