

Repair of Bonded Aluminum Structures

5 DAY COURSE

COMPOSITES

Abaris Training Resources, in cooperation with FlightSafety International is pleased to offer a wide variety of Composite Training Options for today's Aircraft Maintenance Technicians. These programs include: Engineering / Design, Manufacturing, and Repair classes to meet your composites education requirements.

This course is designed with both active classroom lecture and practical hands-on fabrication and repair exercises, supporting the student's understanding of the methods, techniques, and other processes needed to return a damaged aluminum structure to service.

The course contains a balance of theory, testing, and practical application that provides a solid foundation in the principles of adhesively bonded repairs for aluminum structures.

THEORY COURSE MODULES

- Repair instructions
- Surface preparation of aluminum and other metals
- Specified structural adhesives
- Bond line integrity, thickness, and contamination considerations
- Aluminum honeycomb core materials
- Damage assessment and removal
- Repair of damaged aluminum sandwich structures
- Adhesive cure cycle requirements
- Vacuum bagging methods and techniques
- Destructive and non-destructive testing of bonded structures
- Health and safety considerations

PRACTICAL COURSE MODULES

- Surface preparation of aluminum using the Boeing-developed and approved Phosphoric Acid Anodization (PAA) and Sol-Gel processes
- Fabricate and test wedge coupons in accordance with ASTM D-3762 standards
- Subject specimens to different environmental conditions, record and analyze failure
- Manufacture bonded panels with film adhesives, using vacuum bag and hot-bond curing techniques
- Damage assessment of aluminum panels
- Repair damaged aluminum honeycomb sandwich structures
- Vacuum bagging and curing of repairs using potable process control equipment (hot bonders)
- Inspection of post-repair structures

Total Days 5.0

APPROVALS AND LIMITATIONS

FAA IA renewal Accepted

Accredited for IA refresher training under Title 14 CFR part 65, § 65.93(a)(4)

FOR MORE INFORMATION, CONTACT: +1 201.528.0170 or sales@flightsafety.com

Internal Use Only:
304246

TRAINING LOCATIONS

Wichita, Kansas