Permabond®
Engineering Adhesives

ADHESIVES FOR AEROSPACE



Permabond adhesives play a vital role in the manufacture of both air- and spacecraft. Achieving a design that is rugged enough to withstand pressure from air, weather, and extreme temperatures, while also being as light as possible, is of paramount importance to aerospace engineers.

Adhesives, being far lighter than traditional fastening and securing methods, provide an attractive, strong bond, as well as an impermeable seal, and are therefore an ideal solution for bonding a wide variety of advanced materials found in the aerospace industry.

KEY FEATURES:

- Light weight
- Environmental resistance
- Stress distribution
- Low outgassing
- Fire retardant
- Various cure methods
- Impact resistant
- Low-odor
- Bond & seal
- RoHS compliance
- Chemical resistant
- Bond dissimilair substrates







IDEAL FOR BONDING:

- ABS
- Acrylic
- Aluminum
- Carbon Fiber
- Composite
- FRP/GRP
- Ferrite
- Glass
- HDPE/ LDPE
- Honeycomb
- Laminate
- Magnets
- Nylon
- PCB
- Phenolic
- Polypropylene
- Rubber
- Steel
- Titanium
- Zinc

...and many more!

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Typical Application	Features	Cure Method	Viscosity (mPa.s) cP	Gap Fill (mm) in	Handling Time (on Steel)	Temp. Range (°C) °F
Bonding aircraft seat trays	**Permabond ET515** 2-part epoxy with flexibility, excellent impact and vibration resistance	Epoxy - 2-part 1:1 mix ratio, room temperature cure	17,000	(2.0) 0.08	20-30 min.	(-55 to +100) -65 to +215
Aluminum bonding. Seat construction, composite panel bonding/repair, honeycomb bonding, frame bonding	**Permabond ET5422** 2-part blue epoxy with high shear and peel strength	Epoxy - 2-part 2:1 mix ratio, room temperature or heat cure	Thixotropic paste	(5.0) 0.2	16 hours @ 23°C	(-40 to +120) -40 to +250
Bonding honeycomb sandwich panels	**Permabond ET5424** Low outgassing very high temperature resistant epoxy	Epoxy - 2-part 4:1 mix ratio, room temperature or heat cure	~2,00,000	(3.0) 0.12	24 hours @23C	(-40 to +230) -40 to +446
Locking of nuts and bolts throughout the aircraft	**Permabond MM115** Anaerobic threadlocking adhesive - prevents vibration loosening	Anaerobic - no mix, cures in contact with metal surfaces in a tightly fitting gap	1300 Thixo	(0.15) 0.006	10 min.	(-55 to +150) -65 to +300
Repairing damaged interior trim, sign bonding, and more	**Permabond 102** General purpose cyanoacrylate adhesive.	Cyanoacrylate - no mix, room temperature, moisture cure	70-90	(0.15) 0.006	10-15 sec.	(-55 to +80) -65 to +180
Aircraft wing spar bonding	**Permabond 910** Rapid curing methyl cyanoacrylate.	Cyanoacrylate - no mix, room temperature, moisture cure	70-90	(0.15) 0.006	10-15 sec.	(-55 to +90) -65 to +195
Bonding overhead cabin lockers	**Permabond TA4810** Structural acrylic, excellent impact and vibration resistance.	Structural acrylic - 2-part 1:1 mix ratio, room temperature cure	175,000	(2.0) 0.08	20-30 min.	(-40 to +120) -40 to +250
Bonding brackets to hold wiring	**Permabond TA4246** Structural acrylic, excellent impact and vibration resistance.	Structural acrylic - resin & brush on initiator, room temperature cure	28,000	(0.5) 0.02	2-4 min.	(-40 to +120) -40 to +250

PERMABOND.COM

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