ASTM D3762 Adhesion Test Fixture

Wedge Test Fixture for Bonded Aluminum Durability

Built to ASTM D3762 — Standard Test Method for Adhesive-Bonded Surface Durability of Aluminum (Wedge Test)



OVERVIEW

Wedge insertion fixture for the ASTM D3762 wedge test. The fixture holds the bonded aluminum specimen square while a wedge is driven into the bond line at one end, creating a stressed crack that is then measured before and after exposure to hot, humid conditioning.

KEY FEATURES

- Holder squares the bonded specimen to the wedge path
- Hardened, precision-ground wedge per standard principle
- Controlled, straight wedge insertion into the bond line
- Use with a test machine or arbor press
- Supplied with adapters to suit your load frame (clevis or threaded)

TECHNICAL SPECIFICATIONS

Test method	Wedge test (bonded surface durability)
Test type / loading	Compression, wedge driven into bond line
Specimens	Bonded aluminum panels/strips per ASTM D3762
Load capacity	Sized to application
Fixture material	Hardened tool steel
Contact surfaces	Ground wedge and specimen holder
Machine connection	Clevis pin, threaded adapter, or arbor press use
Compatible frames	Universal test machines and arbor presses

APPLICATIONS

- Aluminum surface pretreatments
- Aerospace bonded structure
- Anodize and primer qualification
- Bonding process QC

ABOUT THE STANDARD

ASTM D3762 evaluates the durability of adhesive-bonded aluminum surface preparations. A wedge is forced into the bond line of a flat specimen, producing a cleavage crack and stored strain energy. The specimen is exposed to a hot, humid environment and crack growth is measured, revealing the environmental resistance of the surface treatment.

Ordering & customization: Specify specimen width and adherend thickness, wedge size and how the fixture will be driven when ordering.

Specifications are typical and may vary by configuration; confirm at time of quote. Users should refer to the current edition of the standard for test procedures. Part ref. UGC-D3762-ATF