MIXED MODE BENDING FIXTURE (SS AND AL) WITH FIVE SETS OF HINGES

Specimen:
- Width: 1.5”
- Thickness: Up to 0.25”
- Length: Up to 9”

Fixture:
- Construction: Stainless steel and aluminum
- Temperature: -20°F to 120°F (-29 to 49°C)
- Mounting: Top: 1/4”-28 coupling, Bottom: platen (platen not included)
- Capacity: 1,000 lbs (4.4 kN)
- Weight: Approximately 16 lbs
- Dimensions: 10” x 2.5” x 8”
- Standard: Manufactured in accordance with ASTM D6671

Model No. ASTM.D6671.10 - Interlaminar Fracture Toughness Fixture
Includes base, lever, roller, roller holder, (5 sets of 2) hinges, saddle, loading yoke and ball bearing. Accommodates specimens up to 1.5” in width, thicknesses up to 1/4”, and lengths up to 9”. Fixture measures approximately 10” x 2.5” x 8”. LVDT not supplied with fixture. Temp range: -20°F to 120°F (-29 to 49°C). Fixture is manufactured of stainless steel and aluminum in accordance with ASTM D6671.
MODEL NO. ASTM.D6671.10
MIXED, MODE-I, MODE-II, INTERLAMINAR,

ACCESSORIES

Upper and lower fixture attachment is supported on a platen or flat surface of the test machine. (Common adapter sizes include:)

Model No. PLAT.RF061.10 - 6" Diameter Round Fixed Compression Platen
Model No. PLAT.RA061.10 - 6" Diameter Round Articulating Compression Platen
Model No. PLAT.SF061.10 - 6" Square Fixed Compression Platen
Model No. PLAT.SA061.10 - 6" Square Articulating Compression Platen
Model No. M03S36 - 1.25" Male Clevis (Type D) to 1" -14 Threaded Stud

SPARE PARTS

Model No. SPA.D6671.10 - Extra 5 sets of (2) Hinges

REFERENCE DOCUMENT AND TEST METHOD SCOPE:

http://www.astm.org/Standards/D6671.htm
ASTM D6671 / D6671M - 13e1

Standard Test Method for Mixed Mode I-Mode II Interlaminar Fracture Toughness of Unidirectional Fiber Reinforced Polymer Matrix Composites

1.1 This test method describes the determination of interlaminar fracture toughness, Gc, of continuous fiber-reinforced composite materials at various Mode I to Mode II loading ratios using the Mixed-Mode Bending (MMB) Test.

1.2 This test method is limited to use with composites consisting of unidirectional carbon fiber tape laminates with brittle and tough single-phase polymer matrices. This test method is further limited to the determination of fracture toughness as it initiates from a delamination insert. This limited scope reflects the experience gained in round robin testing. This test method may prove useful for other types of toughness values and for other classes of composite materials; however, certain interferences have been noted (see Section 6). This test method has been successfully used to test the toughness of both glass fiber composites and adhesive joints.

1.3 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

1.4 This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.