FLATWISE TENSION FIXTURE WITH 1" ROUND THREADED BONDING BLOCKS

Specimen:	Diameter	1”
Fixture:	Construction	High strength steel with a protective finish
	Temperature	-120 to 250°F (-85 to 122°C)
	Mounting	1/2”-20 threaded couplings
	Capacity	10,000 lbs (44.4 kN)
	Weight	47 lbs approximately
	Dimensions	1” Diameter x 3.5” approximately
	Standard	Manufactured in accordance with ASTM D7291

Model No. ASTM.D7291.10 - Flatwise Tensile Test Fixture
Fixture includes 12 sets of (2) end tabs, a universal joint, and specimen alignment and bonding fixture. Each end tab measures 1” in diameter and measures 1.25” in overall length. Each end tab has a non threaded portion with a machined bonding surface and reduces down to a 1/2” -20 threaded section. The universal joint has 1/2” -20 threaded coupling ends to ensure proper specimen alignment. The alignment and bonding fixture allows 12 complete specimens to be in proper alignment during the bonding process. The specimen alignment and bonding fixture includes 1 base plate, 11 columns, and 18 bushings. Constructed of high strength steel with a protective finish in accordance with ASTM D7291.

Material Testing Technology

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MODEL NO. ASTM.D7291.10
FLATWISE, THROUGH-THICKNESS, TENSILE,

ACCESSORIES

ACC.D7291.1001 - Set of (2) Aluminum End Tabs
ACC.D7291.1002 - Stainless Steel End Tabs

Upper and lower fixture attachment is supplied with 1/2" -20 female coupling (Common adapter sizes include:)
Model No. M01S21 - 1/2" Male Clevis (Type B) to 1/2" -20 Threaded Stud
Model No. M02S21 - 5/8" Male Clevis (Type C) to 1/2" -20 Threaded Stud
Model No. M03S21 - 1.25" Male Clevis (Type D) to 1/2" -20 Threaded Stud
Model No. M12S21 - 12mm Male Clevis (Type O) to 1/2" -20 Threaded Stud
Model No. S36S21 - 1" -14 to 1/2" -20 Threaded Step Stud
Model No. LN21 - 1/2" -20 Threaded Locking Nut with Knurled OD

SPARE PARTS

SPA.D7291.1001 - Set of (2) Steel End Tabs

REFERENCE DOCUMENT AND TEST METHOD SCOPE:

http://www.astm.org/Standards/D7291.htm
ASTM D7291 / D7291M - 15
Standard Test Method for Through-Thickness "Flatwise" Tensile Strength and Elastic Modulus of a Fiber-Reinforced Polymer Matrix Composite Material
1.1 This test method determines the through-thickness "flatwise" tension strength and elastic modulus of fiber reinforced polymer matrix composite materials. A tensile force is applied normal to the plane of the composite laminate using adhesively bonded thick metal end-tabs. The composite material forms are limited to continuous-fiber or discontinuous fiber (tape or 2-dimensional fabric, or both) reinforced composites.
1.2 The through-thickness strength results using this test method will in general not be comparable to Test Method D6415 since this method subjects a relatively large volume of material to an almost uniform stress field while Test Method D6415 subjects a small volume of material to a non-uniform stress field.
1.3 The values stated in either SI units or inch-pound units are to be regarded separately as standard. Within the text, the inch-pound units are shown in brackets. The values stated in each system are not exact equivalents; therefore, each system must be used independently of the other. Combining values from the two systems may result in nonconformance with the standard.
1.4 This standard does not purport to address all of the safety problems, 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.