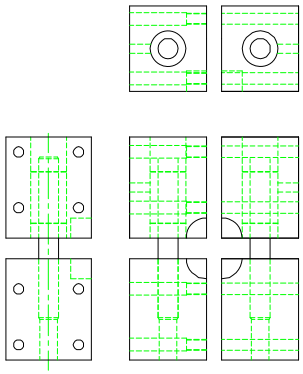
COMBINED LOADING COMPRESSION (CLC) TEST FIXTURE



Specimen:	Width	Up to 1”
	Thickness	Up to 0.5”
	Length	5.5”
Fixture:	Construction	Stainless steel
	Temperature	-240 to 600°F (-152 to 318°C)
	Mounting	Platen to platen (platens not included)
	Capacity	20,000 lbs (88.9 kN)
	Weight	15 lbs
	Dimensions	4.2” x 2.1” x 5.5”
	Standard	Manufactured in accordance with ASTM D6641

Model No. ASTM.D6641.10 - Combined Loading Compression Test Fixture
The fixture consists of two pairs of steel blocks, with each pair bolted together. The specimen fits between the blocks, which prevents buckling of the specimen. The fixture can accommodate specimens 5.5” long, up to 1” wide and up to 0.5” thick. Linear bearing rods keep the upper and lower pairs of blocks in line. A circular recess provides clearance for an extensometer, if necessary. The linear bearing rods can be replaced with longer ones for testing longer specimens. Supplied with stainless steel bearings for higher temperature testing. Temp Range: -240 to 600°F (-152 to 318°C) This fixture is used platen to platen (platens not included). Capacity of 20,000 lbs. Fixture is constructed of stainless steel in accordance with ASTM D6641.

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MODEL NO. ASTM.D6641.10
ASTM, COMPRESSIVE, COMPRESSION,

ACCESSORIES

Model No. ACC.D6641.1002 - Optional Alignment Jig

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

Contact us for spare or replacement parts

REFERENCE DOCUMENT AND TEST METHOD SCOPE:

http://www.astm.org/Standards/D6641.htm
ASTM D6641 / D6641M - 14
Standard Test Method for Compressive Properties of Polymer Matrix Composite Materials Using a Combined Loading Compression (CLC) Test Fixture
1.1 This test method determines the compressive strength and stiffness properties of polymer matrix composite materials using a combined loading compression (CLC) (1)2 test fixture. This test method is applicable to general composites that are balanced and symmetric. The specimen may be untabbed (Procedure A) or tabbed (Procedure B), as required. One requirement for a successful test is that the specimen ends do not crush during the test. Untabbed specimens are usually suitable for use with materials of low orthotropy, for example, fabrics, chopped fiber composites, and laminates with a maximum of 50?% 0° plies, or equivalent (see 6.4). Materials of higher orthotropy, including unidirectional composites, typically require tabs.
1.2 The compressive force is introduced into the specimen by combined end- and shear-loading. In comparison, Test Method D3410/D3410M is a pure shear-loading compression test method and Test Method D695 is a pure end-loading test method.
1.3 Unidirectional (0° ply orientation) composites as well as multi-directional composite laminates, fabric composites, chopped fiber composites, and similar materials can be tested.
1.4 The values stated in either SI units or inch-pound units are to be regarded separately as standard. Within the test 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.
NOTE 1: Additional procedures for determining the compressive properties of polymer matrix composites may be found in Test Methods D3410/D3410M, D5467/D5467M, and D695.
1.5 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.