

ASTM D3410 ISO 14126 Polymer Matrix Composite Shear Load Testing(Hydraulic model)

Applications:

ASTM D3410 is a testing standard designed to measure the compressive properties of polymer matrix composite materials reinforced by high-modulus fibers. This test procedure introduces the compressive force into the specimen through shear at grip interfaces. ASTM D3410 is commonly used for composites made from unidirectional tape, textiles, short fibers, and it can be adapted for similar products.

This test method measures the ultimate compressive strain, the compressive modulus of elasticity, Poisson's ratio, and transition strain. The test utilizes a standard universal testing machine and a specially-designed fixture with wedge grip interfaces as described in the specification. A universal testing machine with two loading rates, with at least one moveable along the testing axis is needed to complete the test procedure. The specially-designed fixture should be attached to the upper cross head and a flat platen that is at least 20 mm (0.75 in) should be attached to the lower crosshead. Before conducting ASTM D3410, it is important to read the entire specification in the relevant ASTM publication.

Parameter:

Model	HST-GTT105Y
Standards	ASTM D3410,ISO 14126
Capacity	100kN
Maximum sample width	30mm
Maximum clamping thickness	12mm
Temperature	0°C~40°C

