



Scope of application

The split disk test fixture is suitable for the quasi-static and cyclic determination of the ring tension properties according to ASTM D2290 or similar on fibre-reinforced plastics and can be used in all common universal testing machines.

The following laminates can be tested:

- Wound tubes and tube sections
- Unidirectional laminates with fibre orientation in 0°- or 0°/90°-direction
- Fabric laminates with fibre orientation in 0°/90° direction
- Short and long fibre reinforced plastics
- Isotropic materials, e.g. pure resin or adhesive resin materials

The split disk test fixture is required to enable the ring-shaped test specimen to be placed almost completely against the radius of the discs adapted to the diameter of the test specimen.

The clevis joints, which can be adapted to all common universal testing machines, are installed for testing. The articulated disks are connected to the clevises via bolts. During the test, the disks align themselves so that the ring-shaped specimen almost completely abuts the disks and a reproducible material failure occurs. The tests are performed on test specimens over the entire width or on test specimens with a reduced cross-section to reduce the marginal influence at a defined failure location. If required, strain gauges can be applied to determine the ring tension stiffness and elongation at failure.

Features & benefits

- Easy alignment and clamping of the test specimen
- Optimised surfaces for reproducible material testing
- Wide range of applications due to disks for ring diameters in the range 50...250 mm
- Material stainless steel



Technical data

Characteristics	Values
Specimen geometry	D 50...250 mm x 6...24 mm
Max. test load	80 kN
Permitted temperature range	-40...+150 °C
Dimensions (W x D x H)	80 mm x 50...250 mm x 150...350 mm
Weight	approx. 5...10 kg

Options

- Clevis joints for upper mounting in universal testing machine according to customer specification
- Disks for ring diameters in the range 50...250 mm

Standards

- ASTM D2290 - 00
Standard test method for apparent hoop tensile strength of plastic or reinforced plastic pipe by split disk method

