

MECHANICAL TESTING

The principle of a mechanical test is to characterise a representative sample of material according approved norms or client specifications.

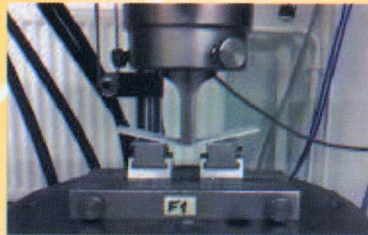
STANDARD TESTS

The CRITT Materials laboratory has a selection of mechanical test machines of a maximum capacity of 25 metric tonnes that enable the following tests :

tensile, perpendicular tensile, interlaminar shear strength, 3 and 4 point flexure, peel, compression.

These tests (undertaken in a controlled environment) can be carried out with the help of micro-deformation gauges and extensometers to measure changes in length, Poisson's ratio or the module of a material.

Aside from the standard tests, the CRITT uses its experience to tailor all its services to company requirements and adapts to requests for specific tests.



HIGH TEMPERATURE TESTS

CRITT has climatic chambers of a maximum volume of 110 litres which cover a temperature range of up to 1 400°C with our partner laboratories.

CRYOGENIC TESTS (TO -180°C)

Our experience over the past few years has enabled CRITT Materials to become one of the leaders in France for very low temperature tests. These tests can also be carried out with the aid of very special sensors. The CRITT's know-how has already received recognition from well known companies such as Gaz Transport and Technigaz (GTT).

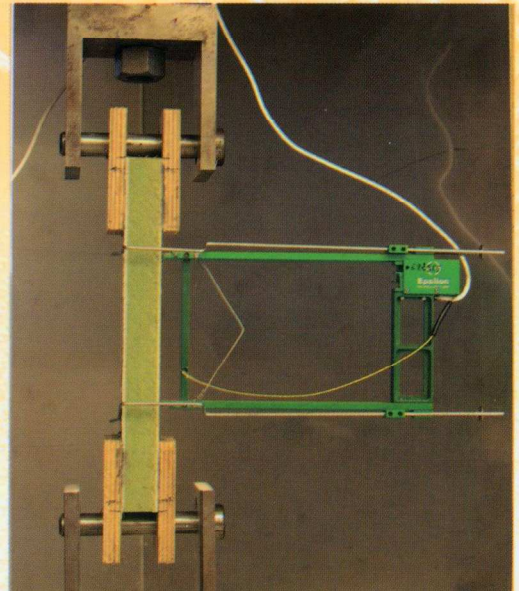
FATIGUE TESTS

(maximum load of 100kN)

These tests are performed in partnership with the LMPM (Laboratory of Material Mechanics and Physics) of Poitiers which is one of the CRITT Materials' partners.

For many uses, these tests are an essential complement to the characterisation in static tests. During the tests, the sample is submitted to repeated stress cycles, which can be undertaken at different temperatures.

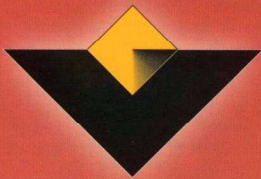
For metallic materials that can be subject to high frequency, the CRITT also performs tests on Vibrophore (Maximum load: 150 kN).



AND MORE : ...

The CRITT has a large range of other tests such as: Rotary drum and revolving disk abrasion, scratch, hardness, Vickers' micro-hardness and ultra-micro-hardness, determination of cold crack temperature, relaxation, creep...

CRITT MATÉRIAUX
POITOU - CHARENTES



MÉTALUX

POLYMÈRES

COMPOSITES

CRITT Materials is the Centre for the Innovation and Transfer of Material Technologies of the Poitou-Charentes region.

Since 1992, the CRITT boasts national recognition for its expertise:

- On metallic materials : analysis and control
- On thermoplastic and thermosetting polymers, foams
- on reinforced plastics and friendly environmental materials
- Adhesive bonding
- From the micro-specimen up to structure approval
- On the long-lasting capacity of automated controls and mechanisms
- Of on-board and on-site trials

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