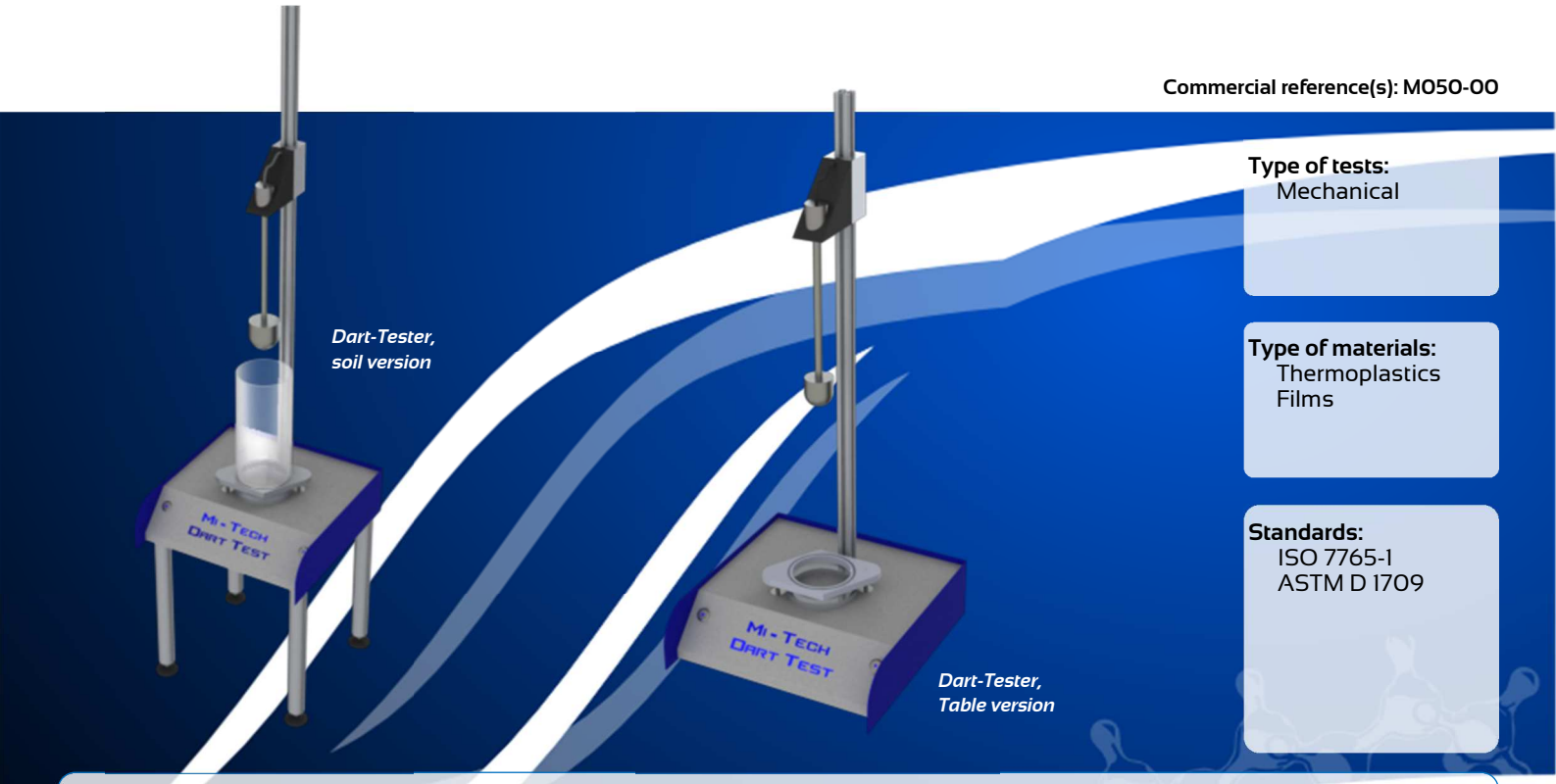
MI-TECH™

Activity of MATÉRIAU INGÉNIERIE

MADE IN FRANCE

Dart-Tester

Falling dart impact tester



Dart-Tester, soil version

Dart-Tester, Table version

Commercial reference(s): M050-00

Type of tests:
Mechanical

Type of materials:
Thermoplastics
Films

Standards:
ISO 7765-1
ASTM D 1709

Introduction

The impact resistance is a primary property thermoplastic films and sheets. Their determination can be made easily by internal methods.

The ISO 7765-1 and ASTM D 1709 recommend an indispensable test method to the comparison between companies and laboratories.

Matériau Ingénierie offers a **Dart-Tester** easy to use and quick to set up the samples. Of course robust and easy maintenance, the cost is affordable.

The design of our **Dart-Tester** allows all changes, or in connection with compatible standards, or according to your internal methods ■

Applications

The **Dart-Tester** has been designed to fully meet the standards ISO 7765-1 and ASTM D 1709 while leaving the user the ability to take their requirements (internal methods) and to allow their possible evolution.

The **Dart-Tester** is specifically designed for testing plastic films and sheets ■

Principle

The impact strength is achieved by means of a hemispherical striker freely dropped onto a film sample.

The striker mounted on a rod increases energy using calibrated masses.

The reference standards used to determine the energy required to break of 50% of the samples by the method of "staircase" ■

Méthods

The standards define two distinct methods, but who return the same principle: the drop height is fixed and the mass is the variable of the test.

The method to follow depends on the expected energy level of the films and / or sheets to be tested.

Remarks:

1- The design of our **Dart-Tester** makes it possible to test different heights. And product qualifications according to internal methods, for example, is possible!

2- standards ISO 7765-1 and ASTM D 1709 are compatible, and in the methods and in the requirements ■

Description

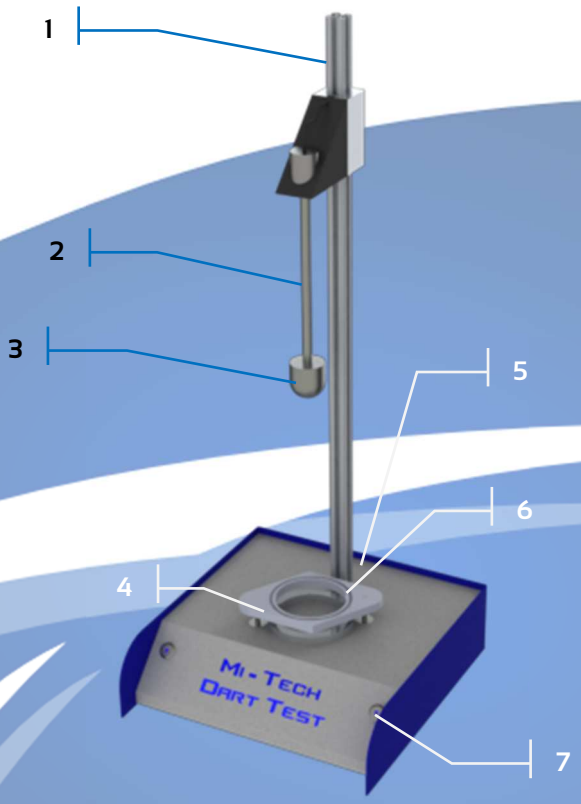
We focused in designing the **Dart-Tester** robustness, usability and scalability.

The **Dart-Tester** can be placed on a lab table, or directly on the ground, depending on the configuration (Method A: 660 mm drop, Method B: 1500 mm drop). In the latter case, the extensions are available (optional) thereby improving the test conditions.

The chassis is compatible with standard methods A and B, the height is adjustable. Every method is an option. A method can be added later .

The supporting column is easily replaceable in order to satisfy the B method (1500 mm drop).

A foot pedal controls the clamping of the specimens.



Caption :*

1– Interchangeable arm

2– Support holding height adjustable

3– Striker, with support masses

4– Pneumatic holding ring specimens

5– Aluminium plate

6– Location of the protective tube

7– Dual release of the striker

***

The foot pedal of the pneumatic clamping of specimens is not shown ■

Available options

➲ Option Method A: comprises a hemispherical striker aluminum diameter 38.1 mm, a mass assembly (2x5 g, 8x15 g, 8x30 g, 8x60 g), according to method A;

Ref. : M050-01.

➲ Option Method B

Comprises a hemispherical striker of stainless steel 50.8 mm in diameter, a mass assembly (2x15 g, 8x45 g, 8x90 g), according to method B.

Ref. : M050-02.

➲ Protective tube

A polycarbonate protective tube may be placed later on the clamping ring. It is easily replaceable in case of breakage.

Ref.: M050-05.

➲ Extensions feet

The use of the **Dart-Tester** is configurable between lab table unit and floor unit. In the latter case, extension cords elevate the **Dart-Tester** improving test conditions.

Ref.: M050-08

Delivered accessories

- Template for square specimens ;
- IEC-type power cord ;
- Calibration certificate ;
- User manual ;
- CE certificate

Spare parts

➲ Mass locking nut. Sold individually.
Ref.: M050-06.

➲ Compression joint. Sold individually
Ref.: M050-07

Technical characteristics*

Sample:	
- Length	*200 mm*
- Width	*200 mm*
Dimensional characteristics (lxdxh):	
- Method A	*303x310x770 mm*
- Method B	*303x310x1810 mm*
Weight:	*52 kg*
Power supply:	*Single phase, 230 V, 50Hz*
Air supply:	*Dry air, 6 bars max*

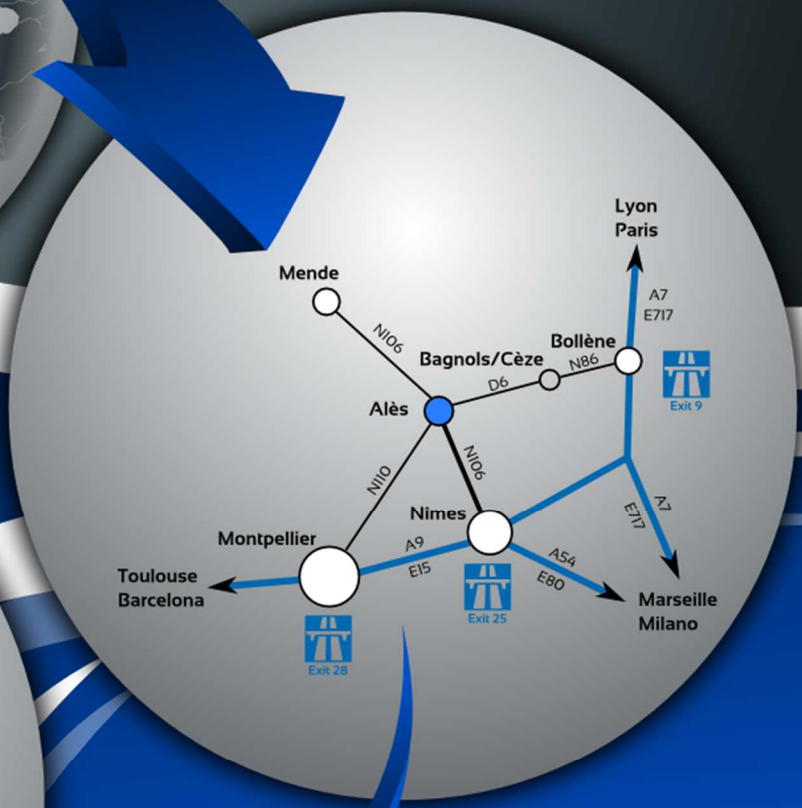
Modifications according to your specifications

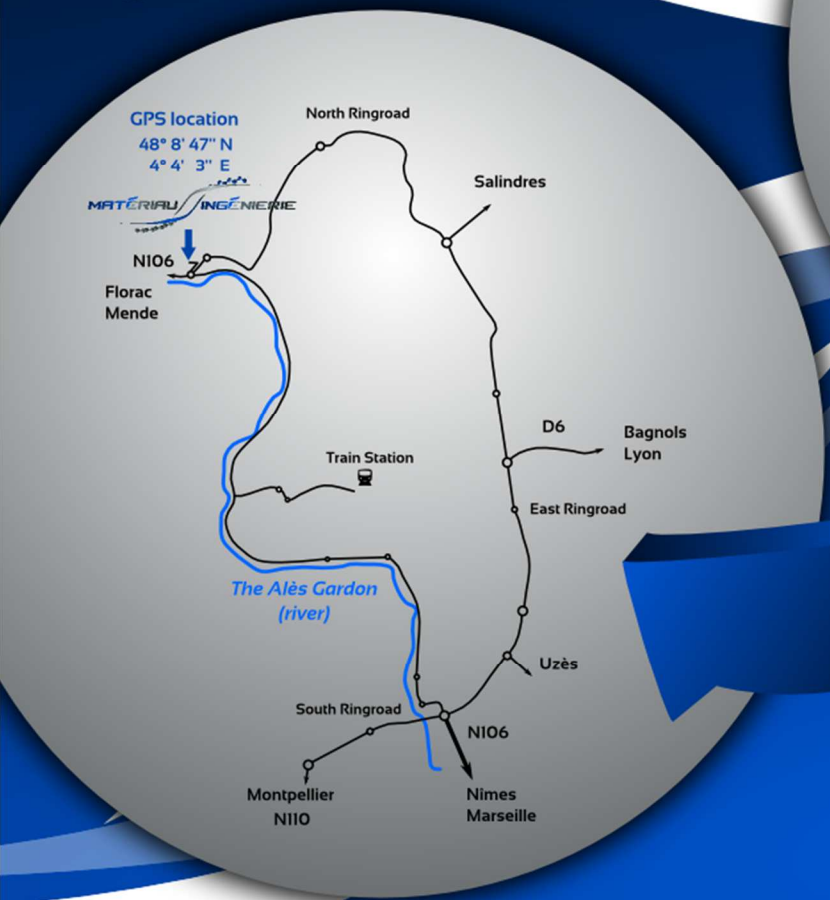
Many methods and standards exist in the field of impact testing on films. The standard offering presented through the **Dart-Tester** can be restrictive in relation to your needs.

Do not hesitate to contact us so that we are studying the feasibility of adapting the Dart Test your specifications

** Features purely illustrative, we reserve the right to change freely in order to improve the performance of our instrument.*

Our contact





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