

Coefficient of Friction Fixture | 2810-005

The Instron® model 2810-005 Coefficient of Friction Fixture measures the static and kinetic coefficient of friction of plastic film and sheet using the ASTM D1894 or ISO 8295: 2004 standards.

The major items of the fixture include a 200 g square metal sled wrapped with a 1/8 in (3.2 mm) thick foam pad and a rectangular-shaped metal table with a defined surface finish. A pulley is located at one end of the table that allows the sled, when attached to the crosshead via a nylon or metal tow line, to be pulled horizontally along the plate. The test sample can be attached to the sled, the plate, or both.

The Coefficient of Friction Fixture mounts in the testing system load frame using Instron's standard Type D base grip adapter. The pull cord attaches to the upper load cell using an Instron Type C couple.

Principle of Operation

The Coefficient of Friction Test Fixture consists of a fixed horizontal table and a moveable sled. Both the table and sled can be covered with the test material. A tow line attaches the sled to a low-force load cell with a pulley that guides the tow line during the test. The fixture is mounted to the base of the instrument and, as the crosshead/ load cell moves, the sled is pulled across the horizontal table.

Data is recorded from the load cell during the test and analyzed to determine both static and kinetic friction. The static friction is derived from the first maximum peak (force) on the load curve and kinetic friction is derived from the average force between two pre-defined points. The coefficient of friction is defined as the recorded force divided by the mass of the sled.

Features and Benefits

- Specimen can be mounted to the sled, the plate, or both
- Allows precise measurement of the static and kinetic coefficient of friction
- Fixture includes both a nylon and a metal tow line
- Adaptable to most standard universal testing instruments

Application Range

- Testing in the tensile mode only; not applicable for high-rate applications
- Suitable for plastic film and sheeting



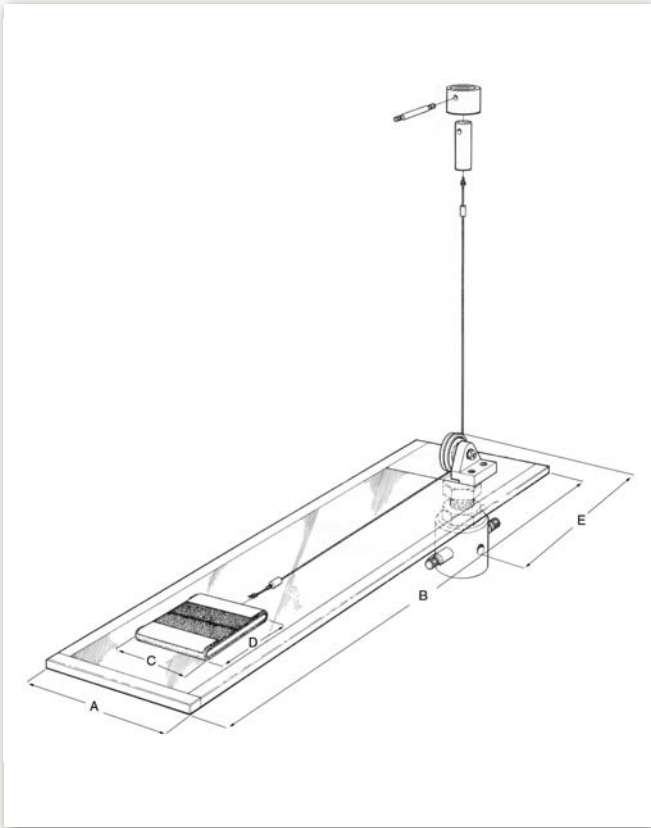
Specifications

Mechanical Connection 2810-005

Upper Fitting		Type Cm (1/4 in Clevis Pin), Type Bm (3/16 in Clevis Pin) Type Om (6 mm Clevis Pin).
Lower Fitting		1/2 in Clevis Pin (Type Dm)

Dimensions

Table Width (A)	mm	152.4
	in	6
Table Length (B)	mm	514.3
	in	20.25
Sled Width (C)	mm	63.5
	in	2.5
Sled Length Approx. (D)	mm	63.5
	in	2.5
Table Effective Length (E)	mm	109.5
	in	4.3
Sled Weight	g	200
	oz	7



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