

COFriction Tester

Model: C0041

a measurable difference...

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This extremely easy to use instrument has been manufactured to determine the static and kinetic friction of plastic film, sheeting and paper and other sheeted material using the horizontal plane principle.

The coefficient of friction (COF) is a number which represents the friction between two surfaces. Friction is a resisting force relating to molecular structure of a surface of one material as it slides over the surface of the same or another material. Molecules

from one surface link with molecules from the other. If you press the objects together more tightly, you push the

surfaces closer together, joining more molecules. This is why friction is proportional to the normal force, how tightly the surfaces have to push on each other to keep from breaking. This proportion is the coefficient of friction.

The C.O.Friction Tester can measure Static COF from a resting position and continue to move testing surfaces in a relative motion to give an accurate kinetic COF result.

The C.O.Friction Tester employs a moving sled with a stationary table. The table has a clamping system preventing slippage of the test piece during a test. The sled is lowered onto the table by means of an elevator system, which places the sled so as both test surfaces meet simultaneously, eliminating any operator error, which may influence the results of the test.

Different COF results in paper can be influenced by antiskid agents, relative humidity and calendering.

The accurate COF data obtained by using the C.O.Friction Tester aids in assessing problem situations such as:

- Roll winding problems. E.g.: crepe wrinkles, dishing, telescoping.
- Web tracking problems and print misregister.
- No feed or multiple feed during sheet feeding. E.g.: printing, envelopes or cartons.
- Registration errors in diecutting or converting.
- Corrugator runnability problems of several kinds.
- Sliding on conveyor when product should not, or vice versa.
- Stack or Pallet stability. e.g.: cartons, sheets, sacks, printed material.

Benefits:

- Designed specifically for friction measurement.
- Provides the user a means of determining the key COF parameters for their product.
- Useful for quality control.
- Precise and repeatable tests.
- Able to test and inspect incoming materials.
- Conforms to ISO 15359
- Extremely easy to operate.



COFriction Tester

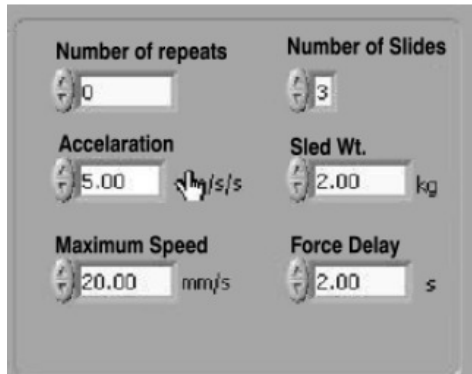
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Operation:

- The C.O.Friction Tester Windows based software allows the operator to set test parameters such as:
- Number of Repeats
- Number of Slides
- Acceleration of Sled
- Sled Weight
- Maximum Speed
- Force Delay

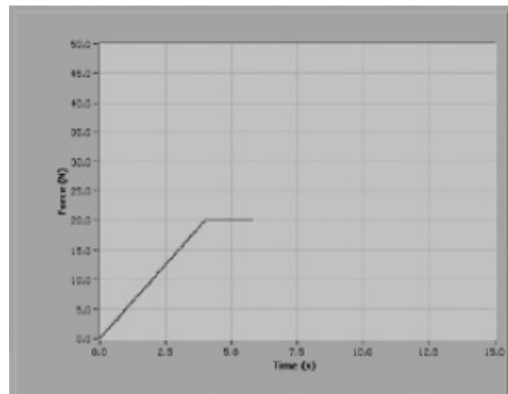


By default, if the operator does not choose to select or adjust any test parameters, the system will automatically load parameters specified by ISO15359.

The operator also has the opportunity of recording Sample Identification, where data such as Operator Name, Description, Part Number, Standard, Date and Place can be recorded with the COF results for future reference. Once all relevant data has been selected and recorded, the simple process of loading the sample ready for testing is achieved with the easy clamping system and sled carriage. With point and click mouse control, OK will initiate the drive mechanism, starting the test operation.

The software package is user friendly, prompting the operator through all processes, including Accepting or Declining each individual test. This allows for any errors, such as a faulty sample, to be deleted and not recorded as part of the final result. Rejecting a slide during a cycle of tests will not alter the sample number. Upon completion of a test cycle, involving the recording COF of selected test runs, a force time graph is displayed. The X and Y axis of the graph can be customised for the particular test being undertaken.

Besides the graph, there are two other panels containing real-time data, the output panel and the COF panel. The test results panel shows the results accumulated during each repeat and is updated at the end of each slide. A statistics panel shows the means of both static and kinetic forces, both frictional and coefficient of friction.



Specifications:

- **Horizontal Table:** 200mm x 500mm s/s flat top surface with a fixed clamp to prevent slippage of sample
- **Sled:** 60 x 60mm +/- 0.1mm
- **Sled Weight:** 800g +/- 5g
- **Load Cell:** 5lb (2.5kg)
- **Drive Mechanism:** Close loop servo
- Adjustable Pause Time after sled placement
- **Display of COF:** Real Time Graph

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Features:

- Operator adjustable testing parameters
- Operator promoting program for ease of use
- Variable Speed Drive
- Unit Selection
- Data viewable after each cycle and or slide
- Data storage in common file format
- COF Curves are plotted in real time

Options:

Sleds:

- 62.5 x 62.5mm for ASTM 3247
- 63.5 x 63.5mm for T 816pm-92 , T 549pm-90 and ASTM ANSI/ASTM D 1894
- 15 x 75mm for DIN 6729
- 63 x 63mm for DIN 53375 and ISO 8295

Peel Fixture:

- For ASTM D3330

Sled Carriage:

- Kinetic average.
- Peak force value.
- Printable results.
- Suitable to a range of products
- Easy to Operate Windows based Universal Testing Program.
- Designed specifically for friction testing

Standards:

- ISO 15359
- ASTM 3247
- ASTM ANSI / ASTM D 1894
- DIN 6729
- DIN 53375
- ISO 8295
- T 816pm-92
- T 549pm-90

Connections:

- **Electrical:** 220/240 VAC @ 50 HZ or
110 VAC @ 60 HZ

(please specify when ordering)

Dimensions:

- **H:** 300mm
- **W:** 650mm
- **D:** 450mm
- **Weight:** 15kg

