RHOPOINT INSTRUMENTS

RHOPOINT AMERICAS

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Manufactured by Rhopoint Instruments in the United Kingdom

HANATEK CFT
COMPACT FRICTION TESTER

Compact Friction Tester

- Static and dynamic coefficient of friction (COF)
- Fast, repeatable measurements
- Compliant to multiple standards

Who measures slip/friction?

Friction testing is used in the packaging industry to measure the slip resistance of a product, with the aim of predicting feeding and running speed on an automatic gluing, erecting, filling or packaging line.

Friction parameters help the manufacturer understand how the finish of the blown film or printed carton can influence the feeding and running speed. Surface slip is a key factor when printing, erecting or filling packaging materials on an automatic line.

- **Product consistency**
- **Packaging speed**
- **Improving manufacturing process**
- **Optimising machinery settings**
- **Direct costs**

  Raw materials, especially speciality polymers
- **Indirect costs**

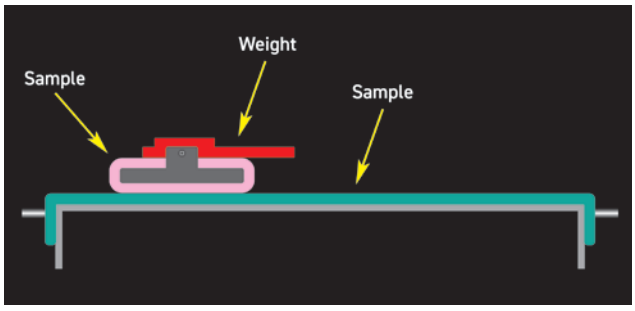
  Rework/Recycling/Replacement cost
  Spoiled package content

What is Slip/Friction?

A product's slip resistance is characterised by it's coefficients of friction:

Static = Fs/N
Dynamic = Fd/N

Where Fs is the maximum static frictional force and the Fd is the average dynamic frictional force. N is the Normal force, i.e. the force of gravity acting on the sample and test sled.

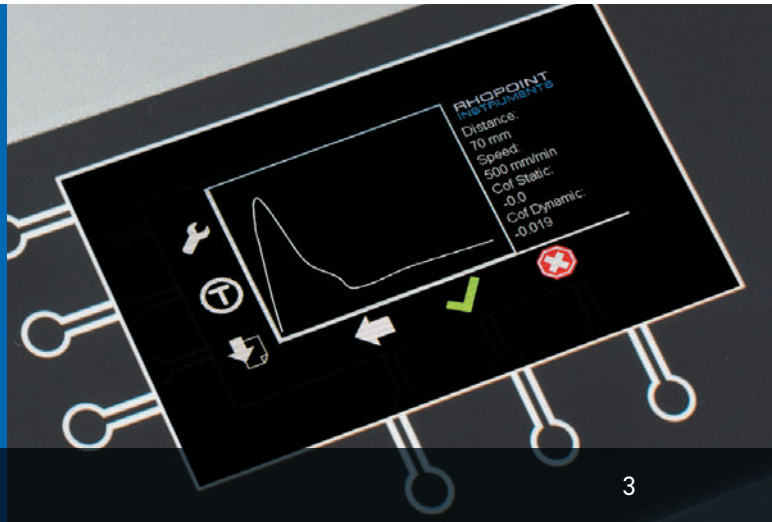


In practical terms, the static slip relates to the force required to get two resting surfaces moving, dynamic slip is the smaller force that is required to keep the surfaces moving once this initial “inertia” is overcome. These values are expressed as ratios and do not have units, they are usually quoted as a decimal value between 0 and 1.

Features

The Compact Friction Tester (CFT) provides detailed information about the slip characteristics of packaging material. Surface slip is a key factor when printing, erecting or filling packaging materials on an automatic line. The CFT produces detailed force graphs that can be printed to a date/time stamped label as an optional extra.

- Graphical representation of forces during test
- Static and dynamic COF results displayed on screen immediately after test
- Full statistical analysis of test results can be printed to Hanatek label printer for easy reporting
- Pre-loaded ISO/ASTM/TAPPI test methods
- Easy load sled for fast sample preparation
- Easy sample mounting



Applications

Friction parameters help the manufacturer understand how the finish of a blown film or printed carton can influence the feeding and running speed.

Printed packaging
Determination of the static and kinetic coefficients of friction

Plastic film
Standard test method for static and kinetic coefficients of friction

ASTM D1894, ISO 8295

Leather
Friction measurement of leather

Labels
Friction measurement of labels

Foils
Friction measurement of foils

Paper
Determination of the static and kinetic coefficients of friction

Printed paper
Coefficients of static and kinetic friction of uncoated writing and printing paper by use of the horizontal plane method

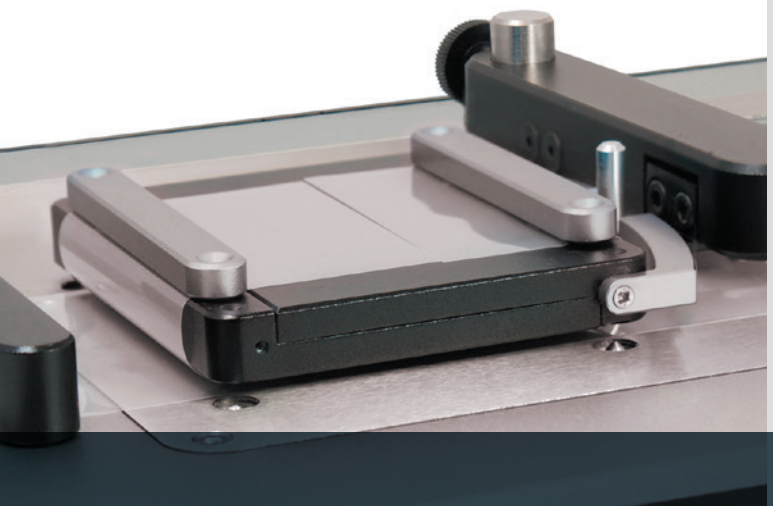
TAPPI T549

Textiles
Friction measurements of textiles

ISO 6383

Cartons
Friction measurement of cartons

Coatings
Friction measurement of coatings



How is friction measured using the CFT?

A sample of 63.5mm² with a weight acting over the entire surface area is moved on top of another sample at a given speed. Static and dynamic coefficient of friction are automatically calculated and displayed on screen. This is typically a face to face test. Automatic sled placement with variable dwell times give more repeatable static slip results.

Accessories

The Hanatek Advanced Friction Tester offers flexible testing to multiple standards and test types.

The package includes:

Instrument and connection cables

200g Sled

Included accessories:

- USB data cables
- Cutting knife
- Spear level
- UKAS traceable calibration certificate

Optional extras:

Result printer

Simple sample preparation with the Hanatek Universal Sample Cutter (USC)

The Hanatek USC has been designed for the simple cutting of samples for the packaging industry. Dies can be configured to cut samples for most test types including: friction, tensile, grammage, O^2 permeability, CO^2 permeability, WVTR, rub resistance, carton crease, carton stiffness and many more.

Specifications

Standard	Application	Details
ISO 8295	Plastic	Determination of the coefficients of friction
TAPPI 549	Paper and board	Coefficients of static and kinetic friction of uncoated writing and printing paper by use of the horizontal plane method
ASTM D2534	Wax coating	Standard test method for coefficient of kinetic friction for wax coatings

Instrument Specifications	Details
Resolution	0.1g/0.001 COF
Accuracy	0.5g
Speed	User definable, 100 - 1200mm/min
Distance	User definable, 10 - 120mm
Power	110/240v 50/60Hz

Instrument Dimensions	Details
Sled weight	200g
Instrument weight	5.5kg
Dimensions	(H) 135mm x (W) 365mm x (D) 254mm
Packed weight	7.5kg
Packed dimensions	(H) 310mm x (W) 380mm x (D) 455mm
Commodity code	9024 8011

Order codes	
Instrument	HAN-A6050FRICTION
Printer	RL-B-PRINTER
Sample cutter (Film)	RL-A80-004-PLAST
Sample cutter (Board)	RL-A80-004

Free extended warranty: Free extended 2 year warranty: Requires registration at **www.rhopointinstruments.com/instrument-registration** within 28 days of purchase. Without registration, 1 year standard warranty applies.

Calibration & services: Fast and economical service via our global network of accredited calibration and service centres. Please visit **www.rhopointinstruments.com/support** for detailed information.

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TRY BEFORE YOU BUY

We offer two options for you to try out the Hanatek CFT before buying

1. **Online demonstration:** Online presentation of the Hanatek CFT with your samples measured LIVE on Zoom, Microsoft Teams or Skype. Includes a consultation with an application specialist

2. **Factory sample testing:** Send in samples of your material for testing and receive a comprehensive test report

Arrange a demo

Ready to receive a quote? Click here

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