Hanatek AFT Friction Tester

Used in accordance with : Measurement standards BS, ISO, TAPPI, DIN, ASTM

The Hanatek Advanced Friction tester is the most comprehensive tool available for measuring the coefficient of friction of plastic film, printed cartons, packaging substrates or paper. This flexible instrument can also be used to measure and display the frictional values of any flat surface including rubber, flooring plastics textile and leather. In addition to providing dynamic and surface slip values for a surface, the instrument allows the full friction force output to be displayed, stored and compared. This unique ability helps a manufacturer to relate the feeding and running speeds of a product to its surface characteristics.

The instrument is available with optional extras to measure peel strength of adhesives, tear strength of substrates and the blocking of plastic films and coated cartons.

The Advanced Friction Tester produces detailed fingerprints of new substrates, coatings and production samples. These characteristics can be saved and compared at any time allowing the manufacturer specify the optimum surface finish for any packaging process.

Surface slip is a key factor when printing, erecting or filling packaging materials on an automatic line. Friction parameters help the manufacturer understand how the finish of a blown film or printed carton can influence the feeding and running speed. In addition to these values the AFT produces detailed force graphs that that can be saved and compared.

Optional attatchments are available for the AFT that will measure peel strength, blocking, and tearing of packaging materials. Measuring surface friction is important in many industries, the AFT can be used to measure many materials including plastic, textiles, leather, rubber and flooring.

At a Glance

- Static and Dynamic
- Coefficients of Friction
- ‘T’ Peel Test
- 90/180° Peel Test
- Tear Strength Test
- Blocking Tests
- Predict Packing Performance
    - Increase Packing Speeds
    - Reduce Downtime
    - Reduce Waste
- Detailed analysis of surface friction characteristics

Features

- Touch screen operation for quick, easy operation
- Automated sled lowering to comply with latest friction standards
- Connect to a network to allow results or printer sharing
- On-line graphical help ensures consistant operation within test methods
- Interactive help routines ensure little training required to operate device
- Pre loaded with ASTM/TAPPI/ISO methods with the ability to create bespoke tests
- Optional Attachments for measuring:
    - Tear strength
    - Peel strength (90 and 180 degrees)
    - Blocking characteristics
    - ISO 15359 testing attachment means no sample contamination during preparation and testing
- Compliant to all major international standards

Save and compare friction profiles

- Fingerprint, store and compare the slip of production items and laboratory samples. Output in force units (g/mN) and static/dynamic COF.

Touch screen operation for easy, repeatable measurements

- Minimal training is required to produce high quality results that comply to international standards. Create new test procedures or work within default methods that comply to international standards.

Auto sled lowering with variable dwell time

- Make operator independent measurements within latest industry guidelines and standards.

Applications

- Printed cartons
- Flexible packaging
- Printing, Rubber
- Linoleum, Leather, Paper
- Foils, Coatings, Plastics
- Textiles, Composites

Technical Specifications

- **Power** : 110/240V 50/ 60 Hz (please specify)
- **SLEDS**
    - 200g standard
    - 100, 500, 700, 800 or 1000g available as options
- **Weight** 7kg
- **Size :** (H) 180 x (W) 550 x (D) 300mm

Standards

Coefficient of Variation

- ISO 8295
- ISO 15359
- ASTM D1894
- TAPPI 549
- TAPPI T816

Peel / Adhesion

- ASTM D4521
- ASTM D3330
- FINAT 1,2,3,9

Tear Strength

- ISO 6383

Optional Accessories

Peel Test
90°,180° and ‘T’ peel test attachments measure adhesive strength of tape, labels, low strength bonding agents or packaging seals.

Trouser Tear
Measure substrate tear strength to ISO 6383-1.

Block Test
Measure the blocking characteristics of films or coated cartons.

Heated Measurement Platen
Test frictional characteristics and blocking at elevated temperatures up to 110°C.

More Features

Touch Screen Interface

The AFT uses an intuitive touch screen interface making it accessible and easy to use.

Development Tool or Q.A. Instrument

This flexible instrument can be configured for Quality or Research use –

- **Research Tool**
  - Create bespoke test methods
  - Statistical and graphical analysis of results

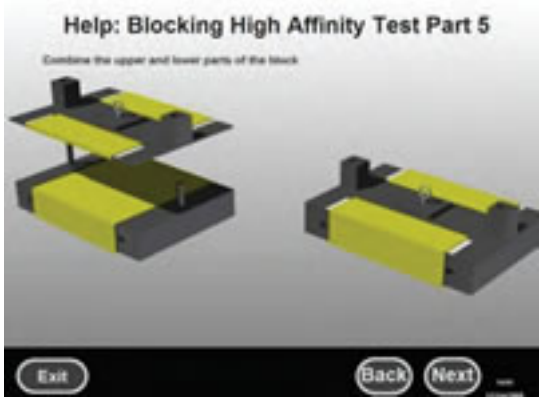
- **Q.A. Instrument**
  - Preloaded ISO/ASTM/TAPPI/FINAT test Methods
  - Date/operator stamped results
  - User definable pass/fail criteria with optional password protection.

On Screen Graphical Help

All operations and test methods have comprehensive graphical on-screen help.

- Intuitive and easy to use
- Easy to train new users
- Consistent results for all operators
- No need to consult complicated manuals.

Static & Dynamic C.O.F. Testing



Force Curves are created in real time static and Dynamic COF values are displayed for each completed test.

- Automatic sled placement gives more repeatable static slip results
- Graphical & statistical analysis of test results
- Create & store electronic references for future comparison
- On screen graphic instructions are always available to aid repeatable, accurate testing
- Revolutionary easy-load sled supplied for measuring films, cartons and paper
- Pre-loaded ISO/ASTM/TAPPI slip test methods.

Substrate Strength – Tear Testing

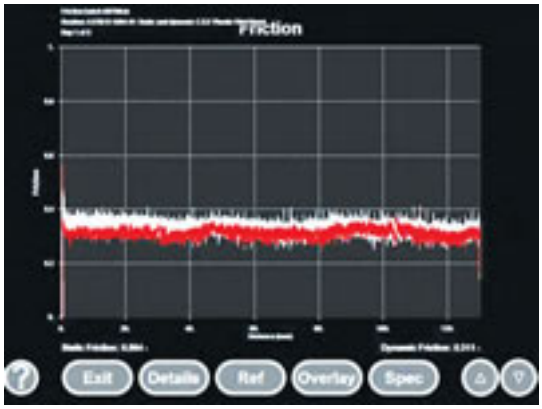
Optional tear strength attachment allow the user to measure and control tear strength to international standards

- Trouser Tear Method
- Full Graphical instructions and sample templates.

Films, Labels & Cartons – Blocking Testing

During storage, films, labels or cartons can inadvertently block together making them difficult to separate and feed into finishing or packing lines.

- Measure the force required to separate “blocked” samples
- Full testing and sample conditioning instructions
- Test to international standards.



Saving, Sharing & Printing Results

The instrument can save an almost infinite number of results. Each test automatically generates a detailed batch report that can be output directly to any windows compatible printer.

The AFT can be added to a laboratory PC network and results saved on a shared drive.

For further analysis results can easily be exported to a USB data stick and transferred to any P.C.