

Hand Abrasion Tester

TRIBOTOUCH®

Functionality of a product is considered as a matter of course, so the perception of quality is determined primarily by the visual appearance. Damage to a surface by the human hand is one of the main reasons for disturbance of the product's quality perception.

The hand abrasion is a very complex chemical and mechanical combination. By touching a surface the human hand performs a mechanical strike followed by a push-slide force. The human hand consists of a visco elastic material containing a rough and structured surface. In addition, sweat or hand cream creates a severe chemical environment.

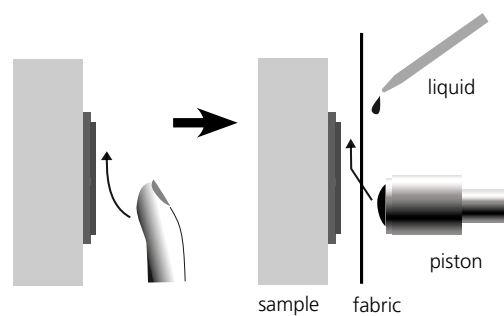


TRIBOTOUCH

The TRIBOTOUCH instrument is designed to do real life testing of finished products or lab samples in regards of resistance to hand abrasion. The set-up of the TRIBOTOUCH is exactly reproducing the complex chemo mechanical system of the human hand abrasion according to international standards.

The flexible design of the TRIBOTOUCH allows various options and delivers reproducible results.

Principle of human touch



Norms / Specifications

International Norm: EC 68-2-70

European Norm: EN 60068-2-70

German Norm: DIN 60068-2-70

Abrasion of markings and letterings caused by rubbing of fingers and hands.

Technical data

Normal load: 1, 5, 10 N (20N optional)

Friction path: 1 - 40mm

Number of cycles: 1 - 100 million

Fluid feed: cyclic

Fabric feed: cyclic

Power supply: 110V / 230V

Mechanical options

Standard fabric

Simulation of human skin acc.

ISO 12947-1/IEC 68-2-70

Dirt affinity

Simulation of soiling of materials.

Cotton soiled with carbon back/oil (IEC).

Abrasion of leather

Simulation of rub resistance of leather.

Standard wool felt.

Abrasion Pads

Simulation of high-abrasive mechanical wear.

Examples of hand abrasion:

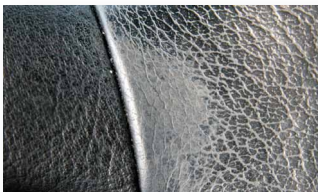
Markings/Labels



Coatings



Surface Structure



Soiling (dirt affinity)



Abrasion Pad ,Scotch test'

Simulation of abrasion with ,scotch' pads.

More options on request.

Chemical options

Artificial Sweat

Artificial Sweat according to ISO 105 E04 or DIN 53160-2.

Hand cream / Sun lotion

Hand cream and Sun lotion according to customer specification.

More options on request.

Applications

Automotive market:

- Printing on switches
- Coating of door handles

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White goods:

- Printing
- Painted surface

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Computer industry:

- Keyboard
- Mouse

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Telecom:

- Surface of handhelds
- Switches

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Security:

- Banknotes
- Security features

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