

Surface Property Tester

TYPE: 14FW

Multiple functions incorporated into one unit, resolving issues in various study subjects

Applications (examples)

- Friction measurements of rubber rollers
- Smoothness measurement of cosmetics and chemicals
- Slip characteristic testing on flooring materials
- Friction measurements of wires
- Adhesion measurements of various tapes
- Friction, wear, and scratch testing on various coating films



This friction and wear tester supports a wide variety of tests. By presetting the speed of table movement, stroke length, and stroke count, the tester can provide testing under various conditions. As the operation for presetting the values can be completed on the touch panel, you do not need to learn complicated operation procedures. Further, using a variety of attachments that can be replaced with the original attachment to the contact portion, not only the contact mode in the friction and wear testing can be changed, but also scratch intensity and peeling resistance tests can be performed. In addition, with the optional software "TriboSoft", data can be easily maintained and analyzed.

Supporting various JIS standards

- By replacing the attachment, various tests conforming to JIS K7125, P8147 and K5600 can be performed.

Real-time measurement of changes in frictional resistance due to wear

- Repeating the friction of the return operation, the number of returns before changes to the surface condition and peeling of the film occurred can be determined from an increase or decrease in the frictional resistance

Measurement of scratch hardness

- The scratch hardness is expressed based on the size of the scratch made by a conical scratch test pin while a predetermined vertical load is applied it.
- A pencil scratch intensity test can also be performed.

Measurement of surface stickiness

- The stickiness is expressed in numerical terms, based on the rolling resistance of a stainless steel roll with rotatably supported by a bearing.

Measurement of peeling resistance

- Adhesion and peeling resistance between duplex board layers can be measured by 180 degree peel and T-peel tests.

Key Specifications

Stroke speed	5 to 6000mm/min
Drive motor	AC servo motor
Drive system	Rack and pinion
Stroke length	1 to 100mm
Stroke mode	Single mode: Automatically stops upon reaching a preset travel distance Repeat mode: Reciprocating motion with a preset stroke length (up to 99,999,999 times)
Measuring range	0 to 0.98N or 0 to 19.61 N
Table dimensions	240mm x 120mm
Safety features	Overload safety device High-frequency noise suppression circuit
Dynamic strain amplifier	Zero-point adjustment: Digital servo auto-zeroing rest system Output (non-linear): 0 to $\pm 5V$ ($\pm 0.05\%$ FS or less) Sensitivity selection: 0/100/50/25/10%FS SN ratio: 60dB Response frequency characteristic: 2kHz/-3dB Filter: 1/10/100/PASS
Operating environment	0 to 50°C, 85% RH or less (non-condensing)
Power supply	AC100V, 50/60Hz
Overall dimensions	W: 630mm x D: 350mm x H: 580mm

Accessories

- Load converter: 1 unit
- Scratch test pin: 1
- ASTM flat indenter: 1 set
- $\phi 10$ mm ball indenter: 1 set
- Combination weights: 1 set
- Power supply cord: 1

