



## No.2004-I

## Delamination resistance test jig (tensile test)

Optional jigs used with the tensile tester for measuring the internal bonding resistance of paper and paperboard. The specimen with double adhesive tape is sandwiched between two 25mm-square blocks of well-polished stainless steel, and a pressure of 150kgf is applied to stick the specimen to the blocks. As in the tensile test, the lower clamp is moved downward to apply a delamination load to the paper layers. Then the blocks are fixed in the clamps of the tensile tester. Tension is applied as in the tensile test to delaminate the specimen. The load at the rupture of paper layers is recorded. In addition, the position of delaminated layers is determined and the state of delaminated surface is observed.

**Referential standards:** J.TAPPI No.18 TAPPI UM584

Five sets of upper and lower blocks

## No.2004-II

## Peeling resistance test instrument

The bonding strength of adhesive paper and adhesive paper tape is usually measure by the 180 ° constant-speed peeling test. These jigs are mounted on the upper frame and moving crosshead of the constant-speed tensioning universal tester. The specimen is secured by the upper and lower clamps, through two low friction guide rolls, and loaded as in the ordinary tensile test. A special mechanism is provided so that the peeling point is always located in the vertical line passing the upper and lower clamps, to achieve high accuracy and reproducibility. By changing the position of the rolls, you can use this instrument for a wide range of thickness and hardness of specimens.

**Outer dimensions:** 150 x 800 x 100mm

**Instrument weight:** 3kg

For using this instrument, it is necessary to work the tensile tester to install mounting pieces.



## No.2004-III

## Friction coefficient measuring instrument

This instrument determines the friction coefficient of the surface of paper and paperboard (including converted paper), using the constant-speed tensioning tensile tester by the horizontal method. Both static and dynamic friction coefficients can be measured.

A specimen is fixed onto the wide smooth metal plate with a tape. Another specimen is applied onto the weight. A low friction pulley is positioned just below the load cell. A thread fixed to the upper chuck is connected, via the pulley, to the weight on the specimen table. As in the ordinary tensile test, the crosshead is lowered to make the weight gradually slide on the specimen. The friction in sliding is detected by the load cell and recorded on the graph. The peak friction at the moment the weight starts to move is static friction, and friction during movement of the weight is dynamic friction.

**Specimens:** 100mm wide x 150mm long and

60mm wide x 120mm long (fixed on the weight)

**Instrument weight:** 1kg, travel distance 50mm

**Load cell capacity:** 49.0N (5kg)

**Crosshead travel speed:** 10mm/min.

**Referential standards:** JIS P-8147-87, TAPPI T549om-01, T816om-92

For using this instrument, it is necessary to work the tensile tester to install mounting pieces.

