No.2085

Internal bond tester

As higher operating speeds are enabled for presses and machine tools, higher quality is demanded for paper and paperboard used. Conventionally, as provided in the J.TAPPI and TAPPI UM standards, the Z-direction strength has been tested with a tensile or bursting tester that measures static strength. With that method, however, it is difficult to grasp behaviors of paper under actual operating conditions. This tester provides reliable information as a tester specialized in measurement of the following: bonding strength of coated paper, kraft paper and laminated paper, delamination resistance of paperboard, and film adhesion strength. This tester works as follows. A specimen with one-inch wide tape attached on both sides is placed on the specimen stage. An aluminum angle is fixed on the specimen. Then that specimen stage is fixed in a holder, and a hammer is struck from a horizontal position to impact on the aluminum angle. Part of the specimen should come off together with the aluminum angle. When the angle comes off, the energy loss of the hammer can be read on a scale.

Specimen: 25 x 25mm 5 pieces
Scale: 0.4N·m, 0.8N·m 2-stage scale (changing the loading weight)
Press adhesion pressure: 0 to 100kg (total pressure)
Accessory: double adhesive tape 25mm wide
Referential standard: J TAPPI NO.18-2, TAPPI UM-403, T569
Outer dimensions: 520 x 430 x 534mm
Instrument weight: 60kg



No.2085-D

Internal bond tester (digital type)

Like the No.2085, this tester dynamically measures delamination strength of paper or paperboard. It is particularly useful for obtaining pre-production knowledge on paper behaviors under severe conditions typical of a high-speed offset press. This tester automatically reads swinging angles of the pendulum to display them digitally. Push button switches provide easy operation when starting the pendulum, making zero setting of rotating friction generated by the pendulum and setting a specimen in place.

Measurement range: 0 to 0.4N·m, 0.3 to 0.8N·m changing the pendulum weight Specimen: 25 × 25mm 5 pieces Adhesion pressure: 20 to 100kg (total pressure), pneumatic and automatic, Adhesion time: 1 to 99 seconds, automatic upward and downward movement by timer Adhesion of specimen: by air cylinder Switching display: SI unit (N) and gram unit (g) selectable Referential standard: J TAPPI NO.18-2,TAPPI UM403, T569,ISO16260-2016 Power source: 100/110VAC 50/60Hz 1A Air pressure source: 0.5MPa or more Outer dimensions: 360 × 650 × 550mm Instrument weight: 37kg

