



No.2086

KRK sheet splitter

This tester is used in studies of sheet structures. By splitting paper into several layers, it analyzes the comprehensive formation of the cross section as well as penetrability of adhesive, ink or color. Mechanism: it uses a pair of metal rolls cooled to 0 °C or lower, between which a sheet of wet paper or paperboard is drawn to be nipped. Then both sides of the sheet get frozen, resulting in internal tear that leads to splitting of the sheet into two frozen sheets, which are collected by a doctor shipped with the tester. Use of this tester enables preparation of more unified and larger specimens compared to conventional methods (using a microtome or a razor). Thus, it can support various research objectives involving observation of characteristics emerging in paper manufacturing such as formation, condition of wire marks, fiber length distribution across layers of paper and filler distribution as well as penetration of printing ink. If the physical characteristics of paper are likely to be affected by water penetration into the specimen, the adhesive tape method can be employed to conduct similar delamination tests.

Specimen size: 90mm wide, 280mm long

Cooling roll: 110mm in diameter, 140mm long

Material: stainless steel: SUS-304

Pressurizing: by spring 3 to 8kg (total pressure)

Circumferential speed: 1.9 to 18.5m/min. (stepless)

Surface temperature: -18°C (minimum)

Refrigerator: air-cooled small refrigerator

Power source: three-phase 200/220VAC 50/60Hz 15A

Outer dimensions: 740 x 1000 x 1180mm

Instrument weight: 310kg

Referential standard: TAPPI UM576

Referential: (1) TAPPI 47 (5) P.254 to 263 J.Psrker and W.C. Mih

(2) P.T.J. March 15, ' 79 P.43 to 46 G.G. Maltenfort

(3) H. Tanaka, Technological Research Institute,
Technological trend and development of neutral
paper making