

No.2039

PPS tester (print-surf tester)

Paper smoothness, one of the most important printing characteristics, has since long been measured with the Oken procedure, Sheffield procedure, Bendtsen tester, Gurley SPS tester or the like, depend upon air permeability and change in air inner pressure. However, these procedures resorting to physical properties involve difficulty in evaluating printing aptitude of paper. Parker Print-Surf (P.P.S.), a 1965' s development by John Parker M.A in the U.K., was highly appreciated by many researchers, as a means to test the aptitude of paper for gravure printing. In 1985, this procedure was adopted as an English standard (BS) and in 1992 as an ISO standard.

The principle is as follows: an extremely thin measurement ring is pressed over the surface of a specimen with a certain level of pressure, and air of stable low pressure is fed from the inside of the ring. The air leaks out from the surface at the extremity where the measurement ring and the paper contact each other. The leak air volume varies with the roughness of a paper sheet, and the amount of leaked air volume is represented as an indicator of paper surface roughness in micron meters.

Measurement items: smoothness, compression

Measurement range: smoothness 0.6 to 6.0 μm

Measurement time: smoothness 4 seconds in standard (able to be set in the range of 3 to 60 seconds)

Width of the measurement ring: 51 μm

Diameter of the measurement ring center: 31.2mm

Air gap width: 51 μm

Measurement air pressure: smoothness 19.6kPa

Clamp pressure: 490, 980, 1960kPa (5, 10, 20kgf/cm²)

Backing: soft and hard

Calculation items: maximum and minimum values, average, standard deviation, variance coefficient, specific compression

Data output: RS-232C

Referential standards: JIS P-8151, ISO 8791-4:1992, BS 6563:1985, TAPPI T555-om99

Power source: 100/110VAC 50/60Hz 2A

Air source: 0.5MPa

Outer dimensions: 340 x 430 x 460mm

Instrument weight: 33kg



Operation panel