



SAHARANPUR TESTING INSTRUMENTS PVT LTD

Manufacturer & Suppliers of All Kind of Pulp, Paper, Board, Tissue,
Packaging, Converting & General Testing Instrument for Laboratory

**PLOT NO 42-44, SRIRAM VATIKA IND. AREA, OPP. STATE BANK OF INDIA DELHI
ROAD, SAHARANPUR U.P 247001 | Mob.: +91-9897044832, +91-9634261884
Email : stipl.pti@gmail.com /info@stiplindia.com**

Smoothness and Porosity (Gurley Hill Type)



Usage : The Smoothness, Porosity and Softness Tester is intended for testing the average Smoothness, Porosity and Softness of paper and films

Definition : Air resistance is the resistance to the passage of air, offered by the paper structure, when a pressure difference exists across the boundaries of the specimen. It is quantified by obtaining the time for a given volume of air to flow

Device Description : The unit is supplied complete with - Lifting Handle Sample Punch, Adopter plate, 3 weights, 3 clamping plates. Air, at a low, uniform pressure is forced downward through an open tube to the upper orificeplate against which the sample is clamped. Each 50cc of air is marked and the test consists of timing the amount of air used in any of the three ways listed below:

SMOOTHNESS TEST

Lateral flow between centrally punched several sheets using one blank adapter plate and Uniform clamping pressure is provided by a lever arm, to which weight can be attached.

POROSITY TEST

Rate of flow through one square inch.using 4 holes adapter plate and upper rubber lined gasket plate

SOFTNESS TEST

Rate of flow over the surface height maintain by steel plug which has been constructed by a given weight. Uniform clamping pressure is provided by a lever arm, to which weight can be attached.

Test Description : The Smoothness, Porosity and Softness Tester is intended for testing the average Smoothness, Porosity and Softness of paper and films.

Specifications :

- 1) Weight of inner cylinder 567 ± 1 g, provided with the ring mark for measuring air leakage through the specimen.
- 2) Outer cylinder of Chromium Plated Brass.
- 3) Inner cylinder of light metal with top of Chromium Plated Brass.
- 4) Support spring for the inner cylinder in the raised position.
- 5) Self aligning clamping plate of stainless steel with ground top surface.
- 6) Rubber Gasket for air tight sealing for sample
- 7) Effective area of Porosity: 645.16 mm^2 .
- 8) Contact area of smoothness 645.16 mm^2 .
- 9) Contact Pressure of smoothness 0.21 Kg/cm^2 .
- 10) Softness contact area 645.16 mm^2 .
- 11) Steel Plug - Height approx. $5/100 \text{ mm}$.
- 12) (100cc of air flows out in 10 sec.)

PRESSURE

- Soft Paper (e.g. news paper) 21.09 Kg/cm^2
- Hard Paper 21.24 kg/cm^2

The unit is supplied complete with - Lifting Handle Sample Punch, Adopter plate, 3 weights, 3 clamping plates. Air, at a low, uniform pressure is forced downward through an open tube to the upper orifice plate against which the sample is clamped. Each 50cc of air is marked and the test consists of timing the amount of air used in any of the three ways listed below:

Electronic Self starting timer for automatic measuring either 25, 50, 100, 150, 200 or 300 cm^3 air to pass through the test specimen. The timer starts automatically when the zero slit of the graduated ruler pass an optional read fork and stops automatically as soon as the predetermined volume of air has been passed through the sample.

Delivery Content :

Consumables :

Service and Startup :