



SMOOTHNESS,
POROSITY AND
SOFTNESS
(or Compressibility)
TESTER (GURLEY method)
S-P-S 4190+4320 model



To quickly and accurately determine the Smoothness, Air Porosity and Softness (or Compressibility) in paper and cardboard using the GURLEY method

SMOOTHNESS, POROSITY AND SOFTNESS TESTER GURLEY S-P-S 4190+4320 model

APPLICABLE STANDARDS

TAPPI T460 - ASTM D 726 - APPITA / AS 1301-420 - BS 5926 - CPPA D.14 - ISO 5636/5
NF Q 03-078 - SCAN P-19 y P-53

GENERAL INFORMATION

This is the most popular and traditional model for the measurement of porosity / air permeability in medium value materials. Materials with lower air permeability can also be tested using optional plates with a smaller orifice diameter.

Air pressure is produced by an inner cylinder of a specified diameter and normalized weight, which floats freely inside another outer cylinder partially filled with oil that acts as an air seal. The sample of the material to be tested is held by clamping plates that have a circular hole of 1.0 square inch (standard) or 0.25 or 0.1 square inch (optional).

Readings from the Smoothness and Porosity Meter can be evaluated directly or indirectly depending on the material and the objectives of the test. Directly when the ability to resist the passage of air through a material is tested. Indirectly, when you want to measure other physical properties that affect the passage of air through a porous sheet.

The Smoothness and Porosity Meter model S.P.S. 4190+4320 includes a 20-ounce cylinder, as well as a 1.0-square-inch air-hole bottom pinch plate and top adapter. The 20 oz cylinder is graduated every 25cc for the two leading spaces and 50cc for each of the remaining spaces, for a total of 300cc. The clamping pressure is regulated by turning a knob that raises and locks the lift assembly and the clamping plate.

This model is basically identical to the 4110 model. Additionally, it includes a weight of 0.34 lb and some adapters for the smoothness measurements. A special plate is also included for the determination of Paper Softness.

APPLICATIONS

- In the manufacture of paper and its printing, to select the materials that provide the ideal degree of absorption of the inks
- To determine the air resistance of insulating materials.

NOTE: This model is **equipped with the 4320 Digital Module**, it allows to control with great accuracy the time in seconds of the air passage through the sample and also to be able to connect the Smoothness and Porosity Meter to the **LYNX** System (Comprehensive Computerized Laboratory Management).

- **Original Gurley equipment**
- **Easy handling and precision**
- **20 oz graduated cylinder and 1 in² measure diameter**
- **Compatible with the **LYNX** laboratory data management system**

POWER SUPPLY: 110V/60 Hz or 220/50 Hz single-phase (corresponds to 4320 digital module)

TEST EQUIPMENT DIMENSIONS: 400 x 215 x 430 mm (W x D x H.)

NET WEIGHT: 12 Kg

TRANSPORT PACKAGING DIMENSIONS: 650 x 500 x 720 mm (W x D x H.)

GROSS WEIGHT APROX.: 24 Kg

CONTENTS OF THE STANDARD SUPPLY:

- * Smoothness, Porosity and Softness Gurley S-P-N 4190 model
- * Model 4320 Digital Test Time Meter
- * 20 oz cylinder
- * 1-inch lower pressure plate2
- * Top adapter
- * Weight 0.34 lb and adapters measurements of Smoothness and Hardness