

SCHOPPER RIEGLER FREENESS TESTER

Code N6600

For the determination of the degree of refining (beating) of a pulp suspension in water and expressing it in terms of the Schopper-Riegler (SR) number, and to determine the de-watering time.

Applicable Standards : ISO 5267-1 / SCAN C 19M3 / BS 6035/1



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PULP Testing Equipment



PAPER TESTING ASSOCIATION

Description

The Schopper-Riegler apparatus measures the degree of work done on the fibres during stock preparation (refining) and is therefore a primary tool in the evaluation of the characteristics of pulp. The apparatus consists of a drainage chamber and rate measuring funnel on a sturdy support. The drainage chamber is fitted with a wire screen (100 cm²) at its lower end and is sealed 25 mm above the screen when the sealing cone is lowered. After filling 1 litre of suspension into the drainage chamber the sealing cone is raised pneumatically. As the filtrate drains into the rate measuring funnel a fibre pad is formed on the screen, slowing down the process depending on the mechanical treatment to which the pulp has been subjected. The discharge from the side orifice is collected in a graduated cylinder, measured by an ultrasonic sensor and the result displayed digitally. The instrument is furnished with a bayonet fixing for quick and easy removal of the upper part of the drainage chambers. The pulp can be removed from the Schopper Riegler screen and dried for determination of dry weight.



Bayonet

Test description

The operator takes 2 g (atro) of pulp, dilutes it in a disintegrator, and pours it in the fill chamber, which is closed by the conical nipple. The conical nipple is lifted pneumatically after pushing the start button, and the suspension discharges. The fibres are retained, while the filtrate drains. The drainage time depends on the composition of the fibre suspension. The filtrate flows into the measuring beaker through the lateral outlet. There, the freeness is shown in Schopper Riegler degrees (°SR).



Special sieve

The Schopper Riegler degree (°SR) describes the amount of drained suspension and is the degree of the drainage properties of the pulp, which has been diluted in water. One °SR corresponds to 10 ml of water. Since water hardness and temperature are significantly influencing the results, it is very important to ensure that the measurement is always performed with the same water hardness and at a temperature of 20 °C.

Specifications

- With pneumatic lifting device and special bayonet fixing
- Drainage chamber made of aluminum
- Wire screen, sealing cone, funnel and drainage chamber are mounted on the stand
- 2 SR measuring beakers, one hook-spanner to exchange the sieve



Schopper Riegler Beakers

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CONNECTIONS :

Air supply : 400 - 600 kPa

WEIGHT AND DIMENSIONS (ONLY MACHINE):

440 x 400 x 1250 mm (WxLxH) / 38 Kg

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