

TESTING FACILITIES AT CIRCOT FOR PULP AND PAPER



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Introduction

The Central Institute for Research on Cotton Technology (CIRCOT), an Institute under ICAR, established in the year 1924 has been engaged in research work on utilisation of crop residues and value addition to processing wastes. During the last two decades the Institute has developed several viable technologies for utilisation of by-products of cultivation that have potential for employment generation in rural areas.

CIRCOT has established a well equipped paper testing facility to undertake work on quality assessment of various grades of pulp and paper prepared from agro-residues and processing wastes. This facility is not only used for undertaking research work, but also available for evaluation of pulping and paper making potential of various ligno-cellulosic raw materials. In addition the Institute also undertakes commercial testing of paper and paper board samples received from trade, industry, Government organisations, etc.



Tensile Strength Tester

Testing Standards and Conditions

The tests are carried out as per the Bureau of Indian Standards (BIS) or Technical Association of Pulp and Paper



Stiffness Tester



Bursting Strength Tester

Industry (TAPPI) standards. The properties are measured under standard conditions of temperature i.e. $27 \pm 2^\circ \text{C}$ and relative humidity of $65 \pm 2\%$. Tests are carried out by using calibrated instruments operated by trained and qualified technical personnel under the direct supervision of expert scientists to ensure that the results are reliable, accurate and reproducible.

Facilities Available at CIRCOT

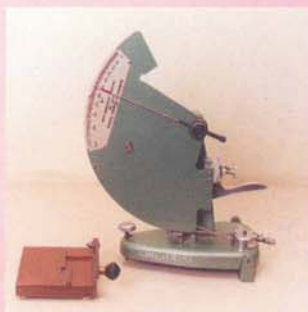
The facilities available for testing of paper/paper board are classified based on the attributes as follows :

1) Physical Properties	Ream weight, Grammage, Thickness (Caliper), Smoothness, Porosity and density (bulk)
2) Mechanical Properties	Tensile strength, Burst factor, Tear factor, Stiffness, folding endurance (no. of double folds), Abrasion resistance, Wax Pick, etc.
3) Optical Properties	Brightness, Gloss, Opacity etc.
4) Chemical Properties	Moisture %, Ash content, pH, Cobb value, water transport, etc.



Quadrant Scale for Grammage

Tearing Resistance Tester



Sample Requirement for Testing

Parties who are interested in testing paper samples will have to submit a minimum quantity of 12 sheets of 25 cm x 25 cm or 25 cm x 20 cm.

Testing Time

The test results will normally be provided within one week after submission of the samples. However on payment of special charges, arrangement can be made to test the samples on a priority basis and results provided within 3 working days after receipt of samples.



Smoothness Tester



Brightness, Gloss & Opacity Tester



For further details contact :

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