1.0 INTRODUCTION

1.1 SCOPE

1.1.1 This document establishes the method for determining Hydogen Ion Concentration (pH) of 7 and 9 point card stock.

1.2 REFERENCES

1.2.1 Specifications

IBM 894502 - Data Processing Card Stock 7 Point
IBM 894507 - Data Processing Card Stock 9 Point

1.2.2 Standards

TAPPI T402 - Conditioning Paper and Paperboard for Testing

1.3 AUTHORIZATION

1.3.1 This document is authorized by the Manager of Quality Assurance Consumables.

1.4 TEST EQUIPMENT/MATERIAL

1.4.1 Beckman pH meter or equivalent

1.4.2 Distillation Flask - 500 ml

1.4.3 100 ml graduate cylinder

1.4.4 Beaker - 1000 ml

1.4.5 Electric hot plate

1.4.6 Condenser tube

1.4.7 Ring Stand and clamp

1.4.8 Beaker - 50 ml

1.4.9 Buffer Solutions, pH = 7 and pH = 5

1.5 CALIBRATION

1.5.1 Reference - Manual of instructions furnished by manufacturer with each instrument.

2.0 PROCEDURE

2.1 SAMPLE PREPARATION

2.1.1 Test specimen shall consist of small bits (roughly 1 sq. cm. in area) of paper torn or cut from at least four data processing cards (or equivalent area of card stock) representative of the sample.

2.1.2 Environment for conditioning and testing shall be in accordance with TAPPI T402. (73 ± 3.5°F and 50 ± 2% RH for a minimum of two hours.)

3.0 TEST INSTRUCTIONS

NOTE: Refer to applicable specification (Reference 1.2.1) for actual value(s) to be tested.

3.1 Weigh out one gram ± .001 gram of the small pieces of data processing cards from the specimen and place in a clean 500 cc distillation flask.

3.2 Pour 70 cc boiling distilled water, neutral (Ph 7.0) into the flask and shake well until all paper bits are saturated and fully immersed in the water.

3.3 Maintain a 1000 cc beaker about 1/3 full of water boiling on electric hot plate.

3.4 Install condenser tube in distillation flask containing test specimen. By means of ring stand and clamp, position this assembly in the 1000 cc beaker of boiling water. Clamp about condenser tube is used to maintain balance. The above arrangement provides a steam bath around the distillation flask, thus maintaining a temperature inside the flask of 90 to 100° Centigrade.

3.5 Heat for one hour. Shake the distillation flask occasionally.

3.6 After one hour, remove the flask from the heating bath and allow it to cool to room temperature.

3.7 Pour off liquid into special 50 cc beaker.

3.8 Follow further detail instructions supplied with the pH meter for reading pH to the nearest 0.1 pH.

4.0 REPORTING

4.1 Report results to nearest 0.1 pH as Acidity pH. The report should state whether hot or cold extraction was used.