

Method for determining

The permeability to water vapour of flexible sheet materials used for packaging

Confirmed
May 2009

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Foreword

The importance of the water vapour permeability characteristics of flexible sheet materials needs no emphasis in view of the rapidly expanding use of these materials in many fields of packaging. It was not unnatural that, some years ago, the need was felt for a method by which the rate of penetration of water vapour through flexible packaging materials could be assessed.

In October, 1948, the Printing, Packaging and Allied Trades Research Association published their Packaging Research Report No. 2 which gave details of a method for the water vapour permeability determination. About this time the Technical Section of the British Paper and Board Makers' Association had a Sub-committee studying the same problem and close co-operation was maintained between this Sub-committee and PATRA, as a result of which the same method was adopted by both these organizations. This British Standard is based upon British PBMA Testing Method PT 19:pm 1950, and grateful acknowledgement is made to both organizations for the considerable amount of work involved. The method is basically very similar to that proposed in the United States by the Technical Association of the Pulp and Paper Industry¹⁾.

This standard which is one of a series for paper testing, is published under the authority of the Paper Industry Standards Committee. The other standards so far published in this series are:

BS 2644, *Sizing properties of paper. Method of testing the degrees of water resistance.*

BS 2699, *The absorbency of blotting paper. Determination of ink absorbent time.*

BS 2916, *Absorbency test for bibulous paper.*

BS 2922, *Methods for testing the strength of wet paper.*

BS 2923, *The printing opacity of paper.*

BS 2924, *Methods for determining the pH value of aqueous extracts of paper.*

BS 2925, *Methods for determining the air permeability and air resistance of paper.*

BS 2987, *Notes on the application of statistics to paper testing.*

BS 3137, *Method of determining the bursting strength of paper.*

NOTE Where metric equivalents have been given, the figures in British units are to be regarded as the standard. The metric conversions are approximate. More accurate conversions should be based on the tables in BS 350, "Conversion factors and tables".

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Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 10 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

¹⁾ TAPPI — Standard Testing Method T448, M-49.

