
**Paper and board — Determination
of water vapour transmission rate of
sheet materials — Dynamic sweep and
static gas methods**

*Papier et carton — Détermination du coefficient de transmission de
la vapeur d'eau des matériaux en feuille — Méthode dynamique par
balayage de gaz et méthode statique*

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Foreword

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This document was prepared by Technical Committee ISO/TC 6, *Paper, board and pulps*, Subcommittee SC 2, *Test methods and quality specifications for paper and board*.

This second edition cancels and replaces the first edition (ISO 9932:1990), of which it constitutes a minor revision. The changes compared to the previous edition are as follows:

- update of the normative references;
- removal of footnotes listing instruments in [Clauses 4](#) and [5](#);
- addition of a general statement of the precision.

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Introduction

The rate of water vapour penetration through a barrier is an important property in many applications, for example, in building and in packaging. ISO 2528 describes a dish method for the determination of the transmission rate and this method has wide acceptance. It does, however, have three disadvantages. Results take several days to obtain, it is not suitable for transmission rates less than $1 \text{ g}/(\text{m}^2 \cdot \text{d})$ and it is not recommended for materials thicker than 3 mm.

The methods described in this document can, depending on the material being tested, produce results in a matter of hours and are suitable for materials with transmission rates considerably less than $1 \text{ g}/(\text{m}^2 \cdot \text{d})$. Depending on the specific apparatus, they are also suitable for materials up to 38 mm thick.

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