INTERNATIONAL STANDARD

ISO 9932

Second edition
2021-03

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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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

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.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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 g/(m^2·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 g/(m^2·d). Depending on the specific apparatus, they are also suitable for materials up to 38 mm thick.