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Adhesives for organic electronic devices — Determination of water vapour transmission rate — Part 1: Adhesive film preparation methods (ISO 21760-1:2019)

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INTERNATIONAL STANDARD

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Adhesives for organic electronic devices — Determination of water vapour transmission rate —

Part 1: Adhesive film preparation methods

Adhésifs pour dispositifs électroniques organiques — Détermination du taux de transmission de vapeur d'eau —

Partie 1: Méthodes de préparation du film adhésif

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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.

The committee responsible for this document is ISO/TC 61, *Plastics*, Subcommittee SC 11, *Products*.

A list of all parts in the ISO 21760 series can be found on the ISO website.

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.

INTERNATIONAL STANDARD **ISO 21760-1:2019(E)**

Adhesives for organic electronic devices — Determination of water vapour transmission rate —

Part 1: Adhesive film preparation methods

1 Scope

This document specifies six methods for determining the water vapour transmission rate of adhesive films coated on a plastic substrate.

The adhesive is used in organic electronic devices such as organic light-emitting diodes.

The methods provide rapid measurement over a wide range of water vapour transmission rates.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2808, *Paints and varnishes — Determination of film thickness*

ISO 4593, *Plastics — Film and sheeting — Determination of thickness by mechanical scanning*

ISO 15106 (all parts), *Plastics — Film and sheeting — Determination of water vapour transmission rate*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
water vapour transmission rate
amount of water vapour transmitted per unit area of *test specimen* (3.2) per unit time under specified conditions

Note 1 to entry: It is expressed in grams per square metre per 24 h [g/(m^2 × 24 h)].

3.2
test specimen
supporting substrate with coating of adhesives applied to it

4 Principle

A test specimen consists of a non-self-supporting adhesive film on a plastic substrate. The test specimen is mounted in a transmission cell forming a sealed barrier between two chambers.

