

# ISO 2965:2019-08 (E)

Materials used as cigarette papers, filter plug wrap and filter joining paper, including materials having a discrete or oriented permeable zone and materials with bands of differing permeability - Determination of air permeability

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
Introduction .....		v
<b>1</b>	<b>Scope .....</b>	<b>1</b>
<b>2</b>	<b>Normative references .....</b>	<b>1</b>
<b>3</b>	<b>Terms and definitions .....</b>	<b>1</b>
<b>4</b>	<b>Principle .....</b>	<b>2</b>
<b>5</b>	<b>Apparatus .....</b>	<b>4</b>
<b>6</b>	<b>Sampling .....</b>	<b>5</b>
<b>7</b>	<b>Procedure .....</b>	<b>5</b>
7.1	General .....	5
7.2	Leak check of the test piece holder .....	5
7.3	Preparation of test pieces .....	5
7.4	Calibration .....	6
7.5	Insertion of a test piece .....	6
7.5.1	General .....	6
7.5.2	Materials with uniformly distributed permeability .....	6
7.5.3	Materials with a narrow and oriented permeable zone .....	6
7.5.4	Materials with an extended and oriented permeable zone .....	6
7.5.5	Materials with discrete permeable zones .....	6
7.5.6	Materials with bands of different air permeability .....	6
7.6	Measurement .....	7
7.6.1	General .....	7
7.6.2	Measurement of strips .....	8
7.6.3	Measurement of spills (papers recovered from manufactured products) .....	8
<b>8</b>	<b>Expression of results .....</b>	<b>8</b>
<b>9</b>	<b>Precision .....</b>	<b>9</b>
9.1	Repeatability .....	9
9.2	Reproducibility .....	9
9.3	Results of an interlaboratory study (Study 1) .....	9
9.4	Statistical discussion of r and R results for Study 1 .....	11
9.5	Results of an interlaboratory study (Study 2) .....	11
9.6	Statistical discussion of r and R results for Study 2 .....	12
<b>10</b>	<b>Test report .....</b>	<b>13</b>
<b>Annex A (normative) Leak testing of test piece holder .....</b>		<b>14</b>
<b>Annex B (normative) Calibration of air permeability standards and air permeability measuring instruments .....</b>		<b>16</b>

<b>Annex C (informative) Determination of relevant surface leakage of test piece in the test piece holder .....</b>	<b>20</b>
<b>Annex D (informative) Flow of air through porous materials .....</b>	<b>22</b>
<b>Annex E (informative) Compensation of calibration standards .....</b>	<b>24</b>
<b>Bibliography .....</b>	<b>27</b>