

# ISO 7004:2002-10 (E)

## Photography - Industrial radiographic films - Determination of ISO speed, ISO average gradient and ISO gradients G2 and G4 when exposed to X- and gamma-radiation

---

<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>Sampling and storage .....</b>	<b>3</b>
<b>5</b>	<b>Method of test .....</b>	<b>3</b>
<b>5.1</b>	<b>Principle .....</b>	<b>3</b>
<b>5.2</b>	<b>Safelights .....</b>	<b>3</b>
<b>5.3</b>	<b>Exposure .....</b>	<b>3</b>
<b>5.4</b>	<b>Processing .....</b>	<b>5</b>
<b>5.5</b>	<b>Densitometry .....</b>	<b>5</b>
<b>5.6</b>	<b>Evaluation .....</b>	<b>6</b>
<b>6</b>	<b>Product classification .....</b>	<b>6</b>
<b>6.1</b>	<b>Speed calculation .....</b>	<b>6</b>
<b>6.2</b>	<b>Average gradient calculation .....</b>	<b>9</b>
<b>6.3</b>	<b>Point gradient determination .....</b>	<b>9</b>
<b>6.4</b>	<b>Uncertainty .....</b>	<b>10</b>
<b>7</b>	<b>Marking and labelling .....</b>	<b>10</b>
<b>7.1</b>	<b>ISO speed .....</b>	<b>10</b>
<b>7.2</b>	<b>ISO average gradient .....</b>	<b>10</b>
<b>7.3</b>	<b>ISO gradients G2 and G4 .....</b>	<b>11</b>
<b>7.4</b>	<b>General .....</b>	<b>11</b>
	<b>Annex A (informative) Units of measured energy .....</b>	<b>12</b>
	<b>Annex B (informative) Scattered radiation measurement .....</b>	<b>13</b>
	<b>Annex C (informative) Calibration of ionization chambers .....</b>	<b>14</b>
	<b>Annex D (informative) Improvement of the reproducibility of measurement of X-radiation .....</b>	<b>15</b>
	<b>Annex E (informative) Derivation of the relationship used in the determination of G2 and G4 .....</b>	<b>16</b>
	<b>Annex F (informative) Radiation quality code .....</b>	<b>17</b>
	<b>Bibliography .....</b>	<b>18</b>