

# ISO 643:2012-12 (E)

## Steels - Micrographic determination of the apparent grain size

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
<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>Symbols and abbreviated terms .....</b>	<b>2</b>
<b>5</b>	<b>Principle .....</b>	<b>2</b>
<b>6</b>	<b>Selection and preparation of the specimen .....</b>	<b>4</b>
<b>6.1</b>	<b>Test location .....</b>	<b>4</b>
<b>6.2</b>	<b>Revealing ferritic grain boundaries .....</b>	<b>5</b>
<b>6.3</b>	<b>Revealing austenitic and prior-austenitic grain boundaries .....</b>	<b>5</b>
<b>7</b>	<b>Characterization of grain size .....</b>	<b>9</b>
<b>7.1</b>	<b>Characterization by an index .....</b>	<b>9</b>
<b>7.2</b>	<b>Characterization by the intercept method .....</b>	<b>11</b>
<b>8</b>	<b>Test report .....</b>	<b>14</b>
<b>Annex A (informative)</b>	<b>Summary of methods for revealing ferritic, austenitic or prior-austenitic grain boundaries in steels .....</b>	<b>15</b>
<b>Annex B (normative)</b>	<b>Determination of grain size -- Standard charts taken from ASTM E112 .....</b>	<b>16</b>
<b>Annex C (normative)</b>	<b>Evaluation method .....</b>	<b>31</b>