

# ISO 4986:2020-02 (E)

## Steel and iron castings - Magnetic particle testing

---

<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>Ordering information .....</b>	<b>1</b>
<b>5</b>	<b>Testing .....</b>	<b>2</b>
5.1	Operating mode .....	2
5.2	Qualification of the operators .....	2
5.3	Surface preparation .....	2
5.4	Conditions of testing .....	2
<b>6</b>	<b>Acceptance criteria .....</b>	<b>3</b>
6.1	Definition of magnetic particle testing indications .....	3
6.1.1	General .....	3
6.1.2	Non-linear indications (SM) .....	3
6.1.3	Linear indications (LM) and aligned indications (AM) .....	3
6.2	Severity levels .....	4
6.2.1	General .....	4
6.2.2	Non-linear indications .....	4
6.2.3	Linear and aligned indications .....	4
6.2.4	Selection of the severity level .....	5
6.2.5	Designation of severity levels .....	5
<b>7</b>	<b>Classification of the indications and interpretation of results .....</b>	<b>5</b>
7.1	Classification of the indications using Tables 1 and 2 .....	5
7.1.1	General .....	5
7.1.2	Non-linear indications .....	5
7.1.3	Linear and aligned indications .....	6
7.2	Interpretation of results .....	6
<b>8</b>	<b>Cleaning after examination and demagnetization .....</b>	<b>6</b>
<b>9</b>	<b>Test report .....</b>	<b>6</b>
<b>Annex A (informative) Recommended surface finish for magnetic particle testing .....</b>		<b>8</b>
<b>Annex B (informative) Reference figures--Non-linear indications (SM) .....</b>		<b>9</b>
<b>Annex C (informative) Reference figures--Linear (LM) and aligned (AM) indications .....</b>		<b>14</b>
<b>Annex D (informative) Model of a magnetic particle test report .....</b>		<b>29</b>
<b>Bibliography .....</b>		<b>31</b>