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Steels, nickel alloys and cobalt alloys investment castings — Visual testing of surface quality

Pièces moulées par le procédé dit «à la cire perdue» en acier, alliages de nickel et alliages de cobalt — Examen visuel de la qualité de surface

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

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Foreword

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This document was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 11, *Steel castings*.

This second edition cancels and replaces the first edition (ISO 19959:2005), which has been technically revised. The main changes compared to the previous edition are as follows:

— “Terms and Definition” renumbered as Clause 3;

— “Ordering Information” renumbered as Clause 4;

— new Clause 7 for “Testing documentation”.

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Steels, nickel alloys and cobalt alloys investment castings — Visual testing of surface quality

1 Scope

This document specifies the acceptance criteria for the surface examination of steel, nickel alloy and cobalt alloy investment castings by visual testing.

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 9712, *Non-destructive testing — Qualification and certification of NDT personnel*

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
surface pit
depression on the surface of the casting, the length of the depression being less than three times its width

3.2
linear discontinuity
depression on the surface of the casting, the length of the depression being equal to, or greater than, three times its width

3.3
positive metal
protrusion on the surface of the casting

3.4
surface roughness
measure of the surface condition

Note 1 to entry: The surface roughness is normally determined by the use of a visual or tactile comparator.

3.5
parting line
surface condition resulting from joints in the tool or die

Note 1 to entry: Parting lines are not linear discontinuities.

3.6
ejector-pin mark
surface condition caused by pins used to remove the pattern from the die

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