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BSI Standards Publication

Thermal spraying — Terminology, classification (ISO 14917:2017)

bsi.

National foreword

This British Standard is the UK implementation of EN ISO 14917:2017. It supersedes BS EN 657:2005 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee STI/40, Thermal spraying and thermally sprayed coatings.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Projection thermique - Terminologie, classification (ISO 14917:2017)

Thermisches Spritzen - Begriffe, Einteilung (ISO 14917:2017)

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European foreword

This document (EN ISO 14917:2017) has been prepared by Technical Committee ISO/TC 107 "Metallic and other inorganic coatings" in collaboration with Technical Committee CEN/TC 240 “Thermal spraying and thermally sprayed coatings” the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2017, and conflicting national standards shall be withdrawn at the latest by September 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 657:2005.

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Endorsement notice

The text of ISO 14917:2017 has been approved by CEN as EN ISO 14917:2017 without any modification.

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 107, *Metallic and other inorganic coatings*.

This second edition cancels and replaces the first edition (ISO 14917:1999), which has been technically revised.

Introduction

Requests for official interpretations of technical aspects of this document should be directed to the Secretariat of ISO/TC 107, *Metallic and other inorganic coatings*, via your national standards body; a listing of these bodies can be found at www.iso.org.

Thermal spraying — Terminology, classification

1 Scope

This document defines processes and general terms for thermal spraying. It classifies thermal spraying processes according to type of spray material, to type of operation and to type of energy carrier. It specifies abbreviations for spray processes, sprayed coatings, and manufacturing steps.

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 6508-1, *Metallic materials — Rockwell hardness test — Part 1: Test method*

ISO 17836, *Thermal spraying — Determination of the deposition efficiency for thermal spraying*

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:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

3.1
thermal spraying
TS
process in which surfacing materials are heated to the plastic or molten state, inside or outside of the spraying gun/torch, and then propelled onto a prepared surface

Note 1 to entry: The substrate may undergo some localized surface melting in the particle impact area only.

Note 2 to entry: To obtain specific properties of the deposit, a subsequent thermal, mechanical or sealing treatment may be used.

4 Process variations

4.1 Classification according to the type of spray material

Distinction of the following variations:

— wire spraying;

— rod spraying;

— cord spraying;

— powder spraying;

— suspension spraying.