Thermal spraying - Zinc, aluminium and their alloys - Part 2: Execution of corrosion protection systems (ISO 2063-2:2017)

EESTI STANDARDIKESKUS
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NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 2063-2:2017 sisaldab Euroopa standardi EN ISO 2063-2:2017 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 2063-2:2017 consists of the English text of the European standard EN ISO 2063-2:2017.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 11.10.2017.	Date of Availability of the European standard is 11.10.2017.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 25.220.20, 25.220.40

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 2063-2

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ICS 25.220.20; 25.220.40

Supersedes EN ISO 2063:2005

English Version

Thermal spraying - Zinc, aluminium and their alloys - Part 2: Execution of corrosion protection systems (ISO 2063-2:2017)

Projection thermique - Zinc, aluminium et alliages de ces métaux - Partie 2: Exécution des système de protection contre la corrosion (ISO 2063-2:2017)

Thermisches Spritzen - Zink, Aluminium und ihre Legierungen - Teil 2: Ausführung von Korrosionsschutzsystemen (ISO 2063-2:2017)

This European Standard was approved by CEN on 31 August 2017.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN ISO 2063-2:2017) 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 April 2018, and conflicting national standards shall be withdrawn at the latest by April 2018.

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

This document supersedes EN ISO 2063:2005.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 2063-2:2017 has been approved by CEN as EN ISO 2063-2:2017 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 document, together with ISO 2063-1:2017, cancels and replaces ISO 2063:2005, which has been technically revised.

A list of all the parts in the ISO 2063 series can be found on the ISO website.

Thermal spraying — Zinc, aluminium and their alloys —

Part 2:
Execution of corrosion protection systems

1 Scope

This document specifies requirements for corrosion protection of steel structures, components or parts, which are coated by thermal spraying of zinc, aluminium or their alloys.

This document specifies requirements for coating manufacturers of surface preparation, thermal spraying, testing and post treatments, e.g. sealing of the coating. This document applies to metallic corrosion protection coatings in the case of new fabrication in the workshop, as well as on-site and for repair on-site after assembly.

Requirements for coating thickness, minimum adhesive strength and surface conditions, specified in a coating specification, are given.

Recommendations are given for suitable process steps and quality assurance measures for new production and maintenance and for supervising of corrosion protection works.

This document covers the application of thermal-sprayed zinc, aluminium and their alloys for protection against corrosion in the temperature range between –50 °C to +200 °C. Heat-resistant protective coatings of aluminium are covered by ISO 17834 and are not in the scope of this document.

This document specifies requirements for the equipment, the working place and the qualification of the spray and testing personnel.

NOTE ISO 2063-1:2017 is addressed to the designer and to the planning engineer of corrosion protection system.

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 1463, *Metallic and oxide coatings — Measurement of coating thickness — Microscopical method*

ISO 2063-1, *Thermal spraying —Zinc, aluminium and their alloys — Part 1: Design considerations and quality requirements for corrosion protection systems*

ISO 2178, *Non-magnetic coatings on magnetic substrates — Measurement of coating thickness — Magnetic method*

ISO 4624, *Paints and varnishes — Pull-off test for adhesion*

ISO 8044, *Corrosion of metals and alloys — Basic terms and definitions*

ISO 8501-1:2007, *Preparation of steel substrates before application of paints and related products — Visual assessment of surface cleanliness — Part 1: Rust grades and preparation grades of uncoated steel substrates and of steel substrates after overall removal of previous coatings*

ISO 8503-1, *Preparation of steel substrates before application of paints and related products — Surface roughness characteristics of blast-cleaned steel substrates — Part 1: Specifications and definitions for ISO surface profile comparators for the assessment of abrasive blast-cleaned surfaces*

ISO 14916, *Thermal spraying — Determination of tensile adhesive strength*

ISO 14917, *Thermal spraying — Terminology, classification*

ISO 14918, *Thermal spraying — Approval testing of thermal sprayers*

ISO 14922-1, *Thermal spraying — Quality requirements of thermally sprayed structures — Part 1: Guidance for selection and use*

ISO 14923, *Thermal spraying — Characterization and testing of thermally sprayed coatings*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 14917, ISO 8044 and the following 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
minimum local thickness
lowest value of the local thickness found on surface of a single article

3.2
dew point
temperature to which a volume of humid air should be cooled, at constant barometric pressure, for water vapour to condense into liquid water on a solid surface

3.3
local repair
restoring of the thermal-sprayed metallic corrosion protection coating by applying a suitable corrosion protection system on small defective areas, such as are caused by damage on transport, erection or by destructive tests

3.4
manufacturing sequence plan
manufacturing and test operations listed step by step

3.5
job control record
JCR
manufacturing sequence plan used for control that each single operation step is really carried out

3.6
job reference specimen
JRS
specimen simulating production conditions and which represents the part to be coated and is comparable in material and size

3.7
job reference qualification
JRQ
qualification of an application or of a thermal sprayer applying a job reference specimen for the test