

Thermal spraying - Wires, rods and cords for flame
and arc spraying - Classification and technical supply
conditions (ISO 14919:2023)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN ISO 14919:2023 sisaldab Euroopa standardi EN ISO 14919:2023 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 08.11.2023.</p> <p>Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN ISO 14919:2023 consists of the English text of the European standard EN ISO 14919:2023.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 08.11.2023.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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English Version

Thermal spraying - Wires, rods and cords for flame and arc
spraying - Classification and technical supply conditions
(ISO 14919:2023)

Projection thermique - Fils, baguettes et cordons pour
projection thermique à l'arc et au pistolet dans une
flamme - Classification et conditions techniques
d'approvisionnement (ISO 14919:2023)

Thermisches Spritzen - Drähte, Stäbe und Schnüre zum
Flammspritzen und Lichtbogenspritzen - Einteilung -
Technische Lieferbedingungen (ISO 14919:2023)

This European Standard was approved by CEN on 5 November 2023.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

This document (EN ISO 14919:2023) 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of an identical text or by endorsement, at the latest by May 2024, and conflicting national standards shall be withdrawn at the latest by May 2024.

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 14919:2015.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Endorsement notice

The text of ISO 14919:2023 has been approved by CEN as EN ISO 14919:2023 without any modification.

Contents		Page
Foreword		iv
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Classification	1
4.1	Classification according to the manufacturing process and resulting structure.....	1
4.2	Classification according to material groups and chemical composition.....	2
5	Sizes and tolerances	10
6	Properties	11
6.1	Mechanical properties.....	11
6.2	Surface properties.....	11
6.3	Workability — Winding of wires.....	12
7	Designation	12
8	Technical supply conditions	12
8.1	Forms of delivery.....	12
8.2	Identification.....	14
8.3	Packaging and storage.....	14
9	Inspection documents	15

Foreword

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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 document 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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For an explanation of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 107, *Metallic and other inorganic coatings*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 240, *Thermal spraying and thermally sprayed coatings*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 14919:2015), which has been technically revised.

The main changes are as follows:

- addition of the alloy ZnAl2, ZnAl4 and ZnAl22 in [Table 4](#).

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Thermal spraying — Wires, rods and cords for flame and arc spraying — Classification and technical supply conditions

1 Scope

This document specifies requirements for classification of metal and non-metal wires (solid and cored), rods, cords processed by means of thermal spraying, especially by arc and flame spraying.

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 544:2017, *Welding consumables — Technical delivery conditions for filler materials and fluxes — Type of product, dimensions, tolerances and markings*

ISO 10474:2013, *Steel and steel products — Inspection documents*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

4 Classification

4.1 Classification according to the manufacturing process and resulting structure

The thermal spray materials are classified according to the manufacturing process and the resulting structure, as given in [Table 1](#).

Table 1 — Classification of thermal spraying material and resulting structure

Number	Term	Manufacturing process	Structure
1	solid wire/rod	metallurgical manufacturing and forming	homogeneous composition
2	solid wire/rod	powder metallurgical manufacturing and forming	homogeneous composition
3	cored wire (tube shaped wire)	filling up a metal tube and compressed by means of forming	seamless metal shell with powder filling
4	cored wire (folded wire)	forming a metal sheet with powder filling, binder and compressed by means of drawing	metal shell with powder filling
5	cords	simultaneous extruding of powder, binder and organic sheath	plastic shell with powder filling