Thermal spraying - Wires, rods and cords for flame and arc spraying - Classification - Technical supply conditions (ISO 14919:2015)



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ICS 25.220.20

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EUROPEAN STANDARD NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 14919

January 2015

ICS 25.220.20

Supersedes EN ISO 14919:2001

English Version

Thermal spraying - Wires, rods and cords for flame and arc spraying - Classification - Technical supply conditions (ISO 14919:2015)

Projection thermique - Fils, baguettes et cordons pour projection thermique à l'arc et au pistolet dans une flamme - Classification - Conditions techniques d'approvisionnement (ISO 14919:2015)

Thermisches Spritzen - Drähte, Stäbe und Schnüre zum Flammspritzen und Lichtbogenspritzen - Einteilung - Technische Lieferbedingungen (ISO 14919:2015)

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CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Foreword

This document (EN ISO 14919:2015) has been prepared by Technical Committee CEN/TC 240 "Thermal spraying and thermally sprayed coatings" the secretariat of which is held by DIN, in collaboration with Technical Committee ISO/TC 107 "Metallic and other inorganic coatings".

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of an identical text or by endorsement, at the latest by July 2015, and conflicting national standards shall be withdrawn at the latest by July 2015.

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Introduction

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

1 Scope

This International Standard 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, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

ISO 544:2011, Welding consumables — Technical delivery conditions for filler materials and fluxes — Type of product, dimensions, tolerances and markings

3 Classification

3.1 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 <u>Table 1</u>.

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

extruding and sintering respectively drying of ceramic mate-

Table 1 — Classification of thermal spraying material and resulting structure

3.2 Classification according to material groups and chemical composition

The material groups are given in <u>Table 2</u>, and the chemical composition shall comply with <u>Tables 3</u> to <u>10</u>.

porous rod consisting of bonded

ceramic particles

oxide ceramic

rods