AWS C2.25/C2.25M:2012
An American National Standard

Specification for Thermal Spray Feedstock—Wire and Rods

American Welding Society®

Approved American National Standard
ANSI

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Approved by the
American National Standards Institute
September 5, 2012

Specification for Thermal Spray Feedstock—Wire and Rods

2nd Edition

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Prepared by the
American Welding Society (AWS) C2 Committee on Thermal Spray

Under the Direction of the
AWS Technical Activities Committee

Approved by the
AWS Board of Directors

Abstract

This specification provides the as-manufactured chemical composition classification requirements for solid and composite wires and ceramic rods for thermal spraying. Requirements for standard sizes, marking, manufacturing, and packaging are included.

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Foreword

This foreword is not part of AWS C2.25/C2.25M:2012, *Specification for Thermal Spray Feedstock—Wire and Rods*, but is included for informational purposes only.

This is the first revision of the specification originally issued in 2002. That document was developed by request of the U.S. Army Material Technology Center to supersede MIL-W-6712C, Metalizing Wire, with a U.S. National consensus standard. This revision describes a number of new feedstock materials.

Comments and suggestions for the improvement of this standard are welcome. The should be sent to the Secretary, AWS C2 Committee on Thermal Spray, American Welding Society, 8669 Doral Blvd., Suite 130, Doral, FL 33166.

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1. General Requirements

1.1 Scope

This specification prescribes requirements for the classification of thermal spray feedstock based on the as manufactured chemical composition. Thermal Spray Feedstock includes solid and composite wires and ceramic rods for thermal spraying. Requirements for standard sizes, marking, manufacturing, and packaging are included.

1.2 Standard Units of Measurement

This standard makes use of both U.S. Customary Units and the International System of Units (SI). The latter are shown within brackets ([ ]) or in appropriate columns in tables and figures. The measurements may not be exact equivalents: therefore, each system must be used independently.

1.3 Safety Precautions

Safety issues and concerns are addressed in this standard, although health issues and concerns are beyond the scope of this standard. Safety and health information is available from the following sources:

American Welding Society:

(1) ANSI Z49.1, *Safety in Welding, Cutting, and Allied Processes*

(2) AWS Safety and Health Fact Sheets

(3) Other safety and health information on the AWS website

Material or Equipment Manufacturers:

(1) Material Safety Data Sheets supplied by materials manufacturers

(2) Operating Manuals supplied by equipment manufacturers

Applicable Regulatory Agencies

Work performed in accordance with this standard may involve the use of materials that have been deemed hazardous, and may involve operations or equipment that may cause injury or death. This standard does not purport to address all safety and health risks that may be encountered. The user of this standard should establish an appropriate safety program to address such risks as well as to meet applicable regulatory requirements. ANSI Z49.1 should be considered when developing the safety program.

2. Normative References

The following ASTM[1] standards are referenced in the mandatory sections of this document:

(1) ASTM E29, *Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications*

[1] ASTM standards are published by the American Society of Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959.