

ANSI/AWS A5.6-84R
An American National Standard



**Specification for
Covered Copper
and Copper Alloy
Arc Welding
Electrodes**



American Welding Society



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Specification for
Covered Copper and
Copper Alloy Arc Welding
Electrodes

Superseding
AWS A5.6-76

Prepared by
AWS Committee on Filler Metal

Under the Direction of
AWS Technical Activities Committee

Approved by
AWS Board of Directors, September 21, 1983

Abstract

This specification prescribes requirements for the classification of covered copper and copper alloy electrodes for shielded metal arc welding. It includes compositions in which the copper content exceeds that of any other element.



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Specification for Covered Copper and Copper Alloy Arc Welding Electrodes

Issued 1948; revised 1953, 1957, 1966, 1969, 1976, 1984

Scope

This specification prescribes requirements for the classification of covered copper and copper alloy electrodes for shielded metal arc welding. It includes compositions in which the copper content exceeds that of any other element.

Note: No attempt has been made to provide for the classification of all grades of copper and copper alloy welding electrodes. Only the more commonly used have been included.

The values stated in U.S. customary units are to be regarded as the standard. SI units are given as equivalent values to the U.S. customary units. The standard sizes and dimensions in the two systems are not identical, and for this reason, conversion from a standard size or dimension in one system will not always coincide with a standard size or dimension in the other. Suitable conversions, encompassing standard sizes of both can be made, however, if appropriate tolerances are applied in each case.

Part A **General Requirements**

1. Classification

1.1 The welding materials covered by this specification are classified on the basis of chemical composition of the undiluted weld metal as specified in Table 1.

1.2 Material classified under one classification shall not be classified under any other classification in this specification.

2. Acceptance

Acceptance of the material shall be in accordance with the provisions of AWS A5.01, *Filler Metal Procurement Guidelines*.

3. Certification

The manufacturer certifies by affixing the marking required in 18 that the material, or representative material, has passed the tests required for classification, and that the material meets also all other requirements of this specification.

4. Rounding-Off Procedure

For purposes of determining conformance with this specification, an observed or calculated value shall be rounded to the nearest 1000 psi for tensile and yield strength, and to the "nearest unit" in the last right-hand place of figures used in expressing the limiting value for other quantities in accordance with the rounding-off method given in ASTM E29, *Standard Recommended Practice for Indicating Which Places of Figures are to be Considered Significant in Specified Limiting Values*.¹

1. ASTM Standards can be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.