



AEROSPACE MATERIAL SPECIFICATION

AMS2814™**REV. G**

Issued 1963-01
Revised 2011-03
Reaffirmed 2021-08

Superseding AMS2814F

Packaging and Marking of Packages of Welding Wire
Premium Quality

RATIONALE

AMS2814G has been reaffirmed to comply with the SAE Five-Year Review policy.

1. SCOPE

This specification covers spooling and packaging of bare welding wire to ensure cleanliness and freedom from corrosion, spool sizes and weights of spooled wire, and package weights of cut lengths.

2. APPLICABLE DOCUMENTS

The issue of the following documents in effect on the date of the purchase order forms a part of this specification to the extent specified herein. The supplier may work to a subsequent revision of a document unless a specific document issue is specified. When the referenced document has been cancelled and no superseding document has been specified, the last published issue of that document shall apply.

2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

AMS2816 Identification, Welding Wire, Tab Marking System

AMS2819 Identification, Welding Wire, Direct Color Code System

2.2 American Welding Society Publication

Available from American Welding Society, 550 N.W. LeJeune Road, Miami, FL 33126, www.aws.com.

AWS A5.02/A5.02M Specification for Filler Metal Standard Sizes, Packaging, and Physical Attributes

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Documents
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3. TECHNICAL REQUIREMENTS

3.1 Preparation

Prior to winding on spools or cutting to length, wire shall be uncoiled for cleaning and shall be rendered free of dirt, grease, oil, corrosion, and other surface contamination which would interfere with welding. The cleaning method shall not introduce hydrogen to the wire. Chlorinated solvents shall not be used on titanium alloys.

3.2 Packaging shall be in accordance with AWS A5.02/A5.02M and the following:

Packaging shall be performed in an atmosphere of sufficiently low humidity, depending upon the corrosion rate of the alloy, to ensure that wire will not corrode during the packaging operation. Wire, after cleaning preparatory to packaging, shall not be handled with bare hands or unclean gloves.

3.2.1 Spooled Wire

3.2.1.1 Both ends of the spooled wire shall be so treated that it may be readily located for verification purposes.

3.2.1.2 Net weight of wire on spools shall be specified in Table 1 for the alloy type ordered.

TABLE 1A - SPOOL WIRE WEIGHT, INCH/POUND UNITS

Alloy Base	Net Weight Pounds
Aluminum	1, 5, 10, 12-1/2, 15
Magnesium	3/4, 1, 3, 10
Titanium	1, 5, 10, 15, 20
Copper	1, 10, 25, 50
Steel, Corrosion and Heat Resistant Alloys and Refractory Alloys	1-1/2, 2-1/2, 10, 12, 15, 25, 30, 35, 44, 50, 60

TABLE 1B - SPOOL WIRE WEIGHT, SI UNITS

Alloy Base	Net Weight Kilograms
Aluminum	0.45, 2.3, 4.5, 5.7, 6.8
Magnesium	0.3, 0.5, 4.5
Titanium	0.5, 2.2, 4.5, 6.8, 9.1
Copper	0.45, 4.5, 11.3, 22.7
Steel, Corrosion and Heat Resistant Alloys and Refractory Alloys	0.7, 1.1, 4.5, 5.5, 6.8, 11.3, 13.6, 15.9, 20, 22.7, 27.2

3.2.1.3 Spooled wire shall be packaged in hermetically sealed containers with a desiccant and/or a dry, inert atmosphere. When specified, the hermetically sealed containers shall be so designed that they can be used for storage after opening.

3.2.2 Cut Lengths

3.2.2.1 Envelopes shall be made of a material free from oil and other substances detrimental to welding operations. Envelope material used in packaging wire which is susceptible to corrosion shall have a water vapor transmission rate lower than 0.05 grams per 100 square inches (0.775 g/m²) per 24 hours at 100 °F (38 °C) and 90% relative humidity. Envelopes shall be of sufficient strength to withstand normal handling; ends of wires may be capped to prevent puncturing the envelope. Envelopes may be purged with inert gas and this gas maintained as the atmosphere in the envelope; desiccants may also be added for further protection against oxidation and corrosion of the wire. Envelopes in which an inert gas atmosphere is used shall be heat sealed.