



<b>AEROSPACE MATERIAL SPECIFICATION</b>	<b>AMS4245™</b>	<b>REV. G</b>
	Issued 1986-10 Reaffirmed 1995-05 Noncurrent 2008-01 Revised 2023-05	
Superseding AMS4245F		
Aluminum Alloy, Welding Wire 5.0Si - 1.2Cu - 0.50Mg (C355.0) (Composition similar to UNS A03550)		

### RATIONALE

AMS4245G results from a Five-Year Review and update of this specification with changes to update wording to prohibit unauthorized exceptions (3.2, 4.4.1, 5.2.1, and 8.3), update applicable documents (Section 2), relocate definitions (2.3), and allow the use of the immediate prior specification revision (8.4).

#### 1. SCOPE

##### 1.1 Form

This specification covers an aluminum alloy in the form of welding wire.

##### 1.2 Application

This wire has been used typically as filler metal for gas-metal-arc and gas-tungsten-arc welding of aluminum alloy castings having similar composition and requiring, in the weld zone, response to heat treatment, properties, and corrosion resistance comparable to those of the castings, but usage is not limited to such applications.

#### 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 +1 724-776-4970 (outside USA), [www.sae.org](http://www.sae.org).

AMS2813 Packaging and Marking of Packages of Welding Wire, Standard Method

AMS2814 Packaging and Marking of Packages of Welding Wire, Premium Quality

AMS2816 Identification, Welding Wire, Tab Marking Method

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SAE WEB ADDRESS:

For more information on this standard, visit  
<https://www.sae.org/standards/content/AMS4245G/>

- AMS2819 Identification, Welding Wire, Direct Color Code System
- ARP4926 Alloy Verification and Chemical Composition, Inspection of Welding Wire
- AS7766 Terms Used in Aerospace Metals Specifications

## 2.2 AWS Publications

Available from American Welding Society, 8669 NW 36 Street, #130, Miami, FL 33166-6672, Tel: 1-800-443-9353 or 305-443-9353, [www.aws.org](http://www.aws.org).

AWS A5.10 Specification for Bare Aluminum and Aluminum-Alloy Welding Electrodes and Rods

AWS A5.01 Filler Metal Procurement Guidelines

## 2.3 Definitions

Terms used in AMS are defined in AS7766.

## 3. TECHNICAL REQUIREMENTS

3.1 Product shall meet the requirements of AWS A5.10 R-C355.0 and the following:

### 3.2 Exceptions

Any exceptions shall be authorized by the purchaser and reported as in 4.4.1.

## 4. QUALITY ASSURANCE PROVISIONS

### 4.1 Responsibility for Inspection

The producer of wire shall supply all samples for the producer's tests and shall be responsible for the performance of all required tests. The purchaser reserves the right to sample and to perform any confirmatory testing deemed necessary to ensure that the wire conforms to specified requirements.

### 4.2 Classification of Tests

#### 4.2.1 Acceptance Tests

Composition (3.1) and alloy verification (5.1) are acceptance tests and shall be performed on each lot in accordance with AWS A5.01 class S3.

### 4.3 Sampling and Testing

Shall be in accordance with AWS A5.01.

### 4.4 Reports

The producer of wire shall furnish with each shipment a report stating that the wire conforms to the chemical composition and other technical requirements. This report shall include the purchase order number, inspection lot number, AMS4245G, nominal size, type, and quantity.

4.4.1 When material produced to this specification has exceptions are taken to the technical requirements listed in Section 3 (see 5.2.1), the report shall contain a statement "This material is certified as AMS4245G(EXC) because of the following exceptions:" and the specific exceptions shall be listed.

### 4.5 Resampling and Retesting

Not applicable.

## 5. PREPARATION FOR DELIVERY

### 5.1 Alloy Verification

Wire on each spool or in each package of cut lengths shall be alloy verified by a method acceptable to the purchaser. The alloy verification procedures of ARP4926 are recommended.

5.1.1 An 8-inch (203-mm) length of wire shall be made accessible at one end of each spool for alloy analysis, if required.

### 5.2 Identification

Shall be by tab marking in accordance with AMS2816 unless color coding in accordance with AMS2819 or other method is specified by the purchaser.

5.2.1 When technical exceptions are taken (see 4.4.1), the material shall be identified with AMS4245(EXC).

### 5.3 Packaging and Marking

Shall be by standard method in accordance with AMS2813 unless premium quality method in accordance with AMS2814 or other method specified by the purchaser.

## 6. ACKNOWLEDGMENT

A producer shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.

## 7. REJECTIONS

Wire not conforming to this specification, or to modifications authorized by the purchaser, will be subject to rejection.

## 8. NOTES

### 8.1 Revision Indicator

A change bar (I) located in the left margin is for the convenience of the user in locating areas where technical revisions, not editorial changes, have been made to the previous issue of this document. An (R) symbol to the left of the document title indicates a complete revision of the document, including technical revisions. Change bars and (R) are not used in original publications, nor in documents that contain editorial changes only.

8.2 Dimensions and properties in inch/pound units and the Fahrenheit temperatures are primary; dimensions and properties in SI units and the Celsius temperatures are shown as the approximate equivalents of the primary units and are presented only for information.

8.3 It is the purchaser's obligation to ensure that product they procure or resell as AMS4245G has exceptions approved by their subsequent purchaser.

8.4 Unless otherwise specified, the material producer shall work to the revision of this specification (AMS4245) in effect on the date of order placement. Unless otherwise specified, material manufactured and certified to the immediately previous revision of this specification (AMS4245) may be procured and used until inventory is depleted.