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400 Commonwealth Drive, Warrendale, PA 15096-0001

AEROSPACE MATERIAL SPECIFICATION

SAE

AMS 5695G

Issued	JUL 1958
Revised	APR 1988
Noncurrent	APR 1994
Cancelled	JUN 2000
Superseded by AWS A5.4 Class E310-XX	

Steel, Corrosion and Heat Resistant, Covered Welding Electrodes
25Cr - 20Ni (SAE 30310)

UNS W31010

CANCELLATION NOTICE

This specification has been declared "CANCELLED" by the Aerospace Materials Division, SAE, as of June 2000 and has been superseded by AWS A5.4 Class E310-XX. The requirements of the latest issue of AWS A5.4 Class E310-XX shall be fulfilled whenever reference is made to the cancelled AMS 5695. By this action, this document will remain listed in the Numerical Section of the Index of Aerospace Materials Specifications noting that it is superseded by AWS A5.4 Class E310-XX.

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SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

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AEROSPACE MATERIAL SPECIFICATION

SAE

AMS 5695F

Issued JUL 1958

Revised APR 1994

Superseding AMS 5695E

Submitted for recognition as an American National Standard

STEEL, CORROSION AND HEAT RESISTANT, COVERED WELDING ELECTRODES
25Cr - 20Ni (SAE 30310)

UNS W31010

This specification has been declared "NONCURRENT" by the Aerospace Materials Division, SAE, as of April 1994. It is recommended, therefore, that this specification not be specified for new designs.

This cover sheet should be attached to the "E" revision of the subject specification.

"NONCURRENT" refers to those materials which have previously been widely used and which may be required on some existing designs in the future. The Aerospace Materials Division, however, does not recommend these as standard materials for future use in new designs. Each of these "NONCURRENT" specifications is available from SAE upon request.

PREPARED UNDER THE JURISDICTION OF AMS COMMITTEE "F"

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AEROSPACE MATERIAL SPECIFICATION

Submitted for recognition as an American National Standard

AMS 5695E

Issued 7-1-58
Revised 4-1-88

Superseding AMS 5695D

STEEL WELDING ELECTRODES, COVERED, CORROSION AND HEAT RESISTANT
25Cr - 20Ni (SAE 30310)

UNS W31010

THIS REVISION CONTAINS ONLY EDITORIAL CHANGES.

1. SCOPE:

- 1.1 Form: This specification covers a corrosion and heat resistant steel in the form of covered welding electrodes.
- 1.2 Application: Primarily for shielded-metal-arc welding of parts fabricated from steels of similar composition and particularly when the weld zone is required to have corrosion and heat resistance comparable to that of the parent metal.
- 1.3 Classification: Electrodes covered by this specification are classified as follows and shall be suitable for the following usability characteristics:

Type Designation	AWS Designation	Weld Position	Current
A	-15	Flat, Vertical, Overhead, and Horizontal	DC
B	-16	Flat, Vertical, Overhead, and Horizontal	DC - AC
C	-15	Horizontal Fillets, Flat	DC
D	-16	Horizontal Fillets, Flat	DC - AC

- 1.3.1 When DC is specified, reverse polarity (electrode positive) is required.
- 1.3.2 Lime type coverings are required for Types A and C electrodes.
- 1.3.3 Type "A" electrodes shall be supplied unless another type is ordered.

2. APPLICABLE DOCUMENTS: The following publications form a part of this specification to the extent specified herein. The latest issue of Aerospace Material Specifications shall apply. The applicable issue of other documents shall be as specified in AMS 2350.

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AMS 5695G

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AMS 5695G

1. SCOPE:**1.1 Form:**

This specification covers a corrosion and heat resistant steel in the form of covered welding electrodes.

1.2 Application:

Primarily for shielded-metal-arc welding of parts fabricated from steels of similar composition, particularly when the weld zone is required to have corrosion and heat resistance comparable to those of the parent metal.

1.3 Classification:

Electrodes covered by this specification are classified as follows and shall be suitable for the following usability characteristics:

Type Designation	AWS Designation	Weld Position	Current
A	-15	Flat, Vertical, Overhead, and Horizontal	DC
B	-16	Flat, Vertical, Overhead, and Horizontal	DC - AC
C	-15	Horizontal Fillets, Flat	DC
D	-16	Horizontal Fillets, Flat	DC - AC

1.3.1 When DC is specified, reverse polarity (electrode positive) is required.

1.3.2 Lime type coverings are required for Types A and C electrodes.

1.3.3 Type "A" electrodes shall be supplied unless another type is ordered.

2. APPLICABLE DOCUMENTS:

The following publications form a part of this specification to the extent specified herein. The latest issue of Aerospace Material Specifications shall apply. The applicable issue of other documents shall be as specified in AMS 2350.

2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096.

2.1 SAE Publications: Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096.

2.1.1 Aerospace Material Specifications:

AMS 2350 - Standards and Test Methods

2.2 ASTM Publications: Available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

ASTM E353 - Chemical Analysis of Stainless, Heat-Resisting, Maraging, and Other Similar Chromium-Nickel-Iron Alloys

2.3 U.S. Government Publications: Available from Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120.

2.3.1 Military Standards:

MIL-W-10430 - Welding Rods and Electrodes, Preparation for Delivery of

2.4 AWS Publications: Available from American Welding Society, Inc., P.O. Box 351040, Miami, FL 33135.

AWS A5.4 - Corrosion-Resisting Chromium and Chromium-Nickel Steel Covered Welding Electrodes

3. TECHNICAL REQUIREMENTS:

3.1 Composition: Weld metal deposited from electrodes shall conform to the following percentages by weight, determined by wet chemical methods in accordance with ASTM E353, by spectrochemical methods, or other analytical methods acceptable to purchaser:

	min	max
Carbon	0.09 -	0.20
Manganese	1.25 -	2.50
Silicon	--	0.75
Phosphorus	--	0.04
Sulfur	--	0.03
Chromium	25.00 -	27.00
Nickel	20.00 -	22.00
Molybdenum	--	0.75
Copper	--	0.75

3.1.1 Weld Pads for Chemical Analysis: The referee procedure for making pads of weld metal and removing samples for chemical analysis shall be in accordance with AWS A5.4.

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2.1.1 Aerospace Material Specifications:

AMS 2350 Standards and Test Methods

2.2 ASTM Publications:

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