

An American National Standard



Specification for Low-Alloy Steel Electrodes and Fluxes for Submerged Arc Welding



American Welding Society®



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An American National Standard

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Specification for Low-Alloy Steel Electrodes and Fluxes for Submerged Arc Welding

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Prepared by the
American Welding Society (AWS) A5 Committee on Filler Metals and Allied Materials

Under the Direction of the
AWS Technical Activities Committee

Approved by the
AWS Board of Directors

Abstract

This specification provides requirements for the classification of solid and composite carbon steel and low-alloy steel electrodes and fluxes for submerged arc welding. Electrode classification is based on chemical composition of the electrode for solid electrodes, and chemical composition of the weld metal for composite electrodes. Fluxes may be classified using a multiple pass classification system or a two-run classification system, or both, under this specification. Multiple pass classification is based on the mechanical properties and the deposit composition of weld metal produced with the flux and an electrode classified herein. Two-run classification is based upon mechanical properties only. Additional requirements are included for sizes, marking, manufacturing and packaging. The form and usability of the flux are also included. A guide is appended to the specification as a source of information concerning the classification system employed and the intended use of submerged arc fluxes and electrodes.

This specification makes use of both U.S. Customary Units and the International System of Units (SI). Since these are not equivalent, each system must be used independently of the other.



American Welding Society®

550 N.W. LeJeune Road, Miami, FL 33126

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M. D. Tumuluru	<i>US Steel Corporation</i>

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M.L. Caruso	<i>Special Metals</i>
R. A. Daemen	<i>Consultant</i>

C. E. Fuerstenau	<i>Lucas-Milhaupt, Incorporated</i>
J. P. Hunt	<i>Special Metals</i>
S. Imaoka	<i>Kobe Steel Limited</i>
W. A. Marttila	<i>WAMcom Consulting LLC</i>
R. Menon	<i>Stoody Company</i>
D. R. Miller	<i>ABS Americas Materials Department</i>
M. P. Parekh	<i>Consultant</i>
M. A. Quintana	<i>The Lincoln Electric Company</i>
E. S. Surian	<i>National University of Lomas de Zamora</i>
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**Advisors to the A5B Subcommittee on Carbon and Low Alloy Steel Electrodes
and Fluxes for Submerged Arc Welding**

D. D. Crockett	<i>Consultant</i>
S. Imaoka	<i>Kobe Steel Limited</i>
D. R. Miller	<i>ABS Americas Materials Department</i>
D.M. Parker	<i>Consultant</i>
F. A. Rhoades	<i>Hobart Brothers Company</i>
A. C. Souza	<i>Lincoln Electric do Brasil</i>

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