



Specification for Classification of Weld-Through Paint Primers



American Welding Society



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An American National Standard

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American National Standards Institute
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Specification for Classification of Weld-Through Paint Primers

1st Edition

Prepared by the
American Welding Society (AWS) D3 Committee on Welding in Marine Construction

Under the Direction of the
AWS Technical Activities Committee

Approved by the
AWS Board of Directors

Abstract

This specification prescribes the requirements for the classification of weld-through paint primers. The classification is based on paint film thickness and welding procedure. Manufacturers may classify their products to different film thicknesses or welding procedures if they provide the details of their tests.



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Foreword

This foreword is not part of AWS D3.9:2010, *Specification for Classification of Weld-Through Paint Primers*, but is included for informational purposes only.

In 1996, the AWS Committee on Welding in Marine Construction established a Subcommittee on Weld-Through Paint Primers and requested that they develop a standard to classify weld-through paint primers. This document is the first edition of the standard.

Comments and suggestions for the improvement of this standard are welcome. They should be sent to the Secretary, AWS D3 Committee on Welding in Marine Construction, American Welding Society, 550 N.W. LeJeune Road, Miami, FL 33126.

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Introduction

Industries, notably shipbuilding firms, have introduced weld-through paint primers in plate and shape fabrication lines in order to increase productivity. The ability to weld directly through these coatings permits reductions in construction costs and improvements in schedule times.

An obstacle to the immediate introduction of this technology into the welding operations has been the inconsistent quality of welds deposited on the primed base metal. By using a standard test procedure to classify weld-through paint primers, potential users will be able to determine the baseline levels of painting and welding required for their applications and to specify these requirements to their coating supplier.

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Specification for Classification of Weld-Through Paint Primers

1. Scope

1.1 This standard specifies the requirements for the classification of weld-through paint primers only. The paint primers are classified based on the maximum coating thickness for successful welding and the welding procedure used during the classification test. This Standard provides a system for paint manufacturers to classify the weldability features of weld-through paint primers. This Standard is limited to weld-through paint primers only and does not include galvanized or other types of protective coatings.

1.2 This standard makes sole use of the U.S. Customary units. Approximate mathematical equivalents in the International System of Units (SI) are provided for comparison in parentheses or in appropriate columns in tables and figures.

1.3 This Standard is not a safety document. Safety and health issues and concerns are beyond the scope of this standard, and therefore are not fully addressed herein. Safety and health information is available from other sources, including, but not limited to, ANSI Z49.1, *Safety in Welding, Cutting, and Allied Processes*, and applicable federal and state regulations.

The application of coatings and subsequent processing of coated products should observe safety and health precautions in the country-specific and supplier-specific Material Safety Data Sheets (MSDS) for each coating.

In addition to ANSI Z49.1, the AWS also publishes Safety and Health Fact Sheets.¹ These fact sheets are listed in Annex C.

Employers are also referred to the US Department of Labor Regulations. Particular reference is made to OSHA **Shipyard Employment Standard** 29CFR1915.53,² *Welding, Cutting and Heating in Way of Preservative Coatings* and OSHA **Construction Regulation** 29CFR1926.354, *Welding, Cutting, and Heating in Way of Preservative Coatings*.

2. Normative References

The following standards contain provisions which, through reference in this text, constitute mandatory provisions of this AWS Standard. For undated references, the latest edition of the referenced standard shall apply. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply.

ASTM Documents³:

ASTM A36/A36M, *Standard Specification for Carbon Structural Steel*

ASTM A131/A131M, *Standard Specification for Structural Steel for Ships*

ASTM D1186, *Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to a Ferrous Base*

ASTM D4417, *Field Measurement of Surface Profile of Blast Cleaned Steel*

¹ AWS standards are published by the American Welding Society, 550 N.W. LeJeune Rd., Miami, FL 33126.

² Code of Federal Regulations (CFR) standards are published by the U.S. Government Printing Office, 732 N. Capitol Street, NW, Washington, DC 20401.

³ ASTM standards are published by the ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428.