Z535.7-2024

American National Standard
Product Safety Information in Electronic Media

Secretariat

National Electrical Manufacturers Association
1300 North 17th Street, Suite 900
Rosslyn, Virginia 22209

www.nema.org

Approved: 9/19/2024
Published: 9/19/2024

NOTICE AND DISCLAIMER

The information in this publication was considered technically sound by the consensus of persons engaged in the development and approval of the document at the time it was developed. Consensus does not necessarily mean that there is unanimous agreement among every person participating in the development of this document.

The National Electrical Manufacturers Association (NEMA) standards and guideline publications, of which the document contained herein is one, are developed through a voluntary consensus standards development process. This process brings together volunteers and/or seeks out the views of persons who have an interest in the topic covered by this publication. While NEMA administers the process and establishes rules to promote fairness in the development of consensus, it does not write the document and it does not independently test, evaluate, or verify the accuracy or completeness of any information or the soundness of any judgments contained in its standards and guideline publications.

NEMA disclaims liability for any personal injury, property, or other damages of any nature whatsoever, whether special, indirect, consequential, or compensatory, directly or indirectly resulting from the publication, use of, application, or reliance on this document. NEMA disclaims and makes no guaranty or warranty, expressed or implied, as to the accuracy or completeness of any information published herein, and disclaims and makes no warranty that the information in this document will fulfill any of your particular purposes or needs. NEMA does not undertake to guarantee the performance of any individual manufacturer or seller's products or services by virtue of this standard or guide.

In publishing and making this document available, NEMA is not undertaking to render professional or other services for or on behalf of any person or entity, nor is NEMA undertaking to perform any duty owed by any person or entity to someone else. Anyone using this document should rely on his or her own independent judgment or, as appropriate, seek the advice of a competent professional in determining the exercise of reasonable care in any given circumstances. Information and other standards on the topic covered by this publication may be available from other sources, which the user may wish to consult for additional views or information not covered by this publication.

NEMA has no power, nor does it undertake to police or enforce compliance with the contents of this document. NEMA does not certify, test, or inspect products, designs, or installations for safety or health purposes. Any certification or other statement of compliance with any health or safety–related information in this document shall not be attributable to NEMA and is solely the responsibility of the certifier or maker of the statement.

AMERICAN NATIONAL STANDARD

Approval of an American National Standard requires verification by The American National Standards Institute, Inc. (ANSI) that the requirements for due process, consensus, and other criteria for approval have been met by the Standards developer. An American National Standard implies a consensus of those substantially concerned with its scope and provisions. Consensus is established when, in the judgment of the ANSI Board of Standards Review, substantial agreement has been reached by directly, and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered and that a concerted effort be made toward their resolution.

The existence of an American National Standard does not in any respect preclude anyone, whether s/he has approved the Standard or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the Standards. It is intended as a guide to aid the manufacturer, the consumer, and the general public.

The American National Standards Institute, Inc., does not develop Standards and will in no circumstances give an interpretation of any American National Standard. Moreover, no person shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute, Inc. Requests for interpretations should be addressed to the secretariat or sponsor whose name appears on this title page.

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute, Inc. require that action be taken periodically to reaffirm, revise, or withdraw this Standard. Purchasers of American National Standards may receive current information on all Standards by calling or writing the American National Standards Institute, Inc.

CONTENTS

Figures

Tables

Foreword

In 1979, the ANSI Z53 Committee on Safety Colors was combined with the ANSI Z35 Committee on Safety Signs to form the ANSI Z535 Committee on Safety Signs and Colors. This committee has the following scope:

> To develop standards for the design, application, and use of signs, colors, and symbols intended to identify and warn against specific hazards and for other accident prevention purposes.

While the basic mission and fundamental purpose of the ANSI Z535 committee is to develop, refine, and promote a single, uniform graphic system used for communicating safety and accident prevention information, the committee recognizes that this information can also be effectively communicated using other graphic systems.

The Z535 committee created subcommittees to update the Z53 and Z35 standards and to write new standards. To date, the following seven standards comprise the ANSI Z535 series:

ANSI Z535.1 *Safety Colors* (ANSI Z53.1-1979 was updated and combined into this standard in 1991)

ANSI Z535.2 *Environmental and Facility Safety Signs* (ANSI Z35.1-1972 and Z35.4-1972 were updated and combined into this standard in 1991)

ANSI Z535.3 *Criteria for Safety Symbols* (new in 1991)

ANSI Z535.4 *Product Safety Signs and Labels* (new in 1991)

ANSI Z535.5 *Safety Tags and Barricade Tapes (for Temporary Hazards* (ANSI Z35.2-1974 was updated and combined into this standard in 1991)

ANSI Z535.6 *Product Safety Information in Product Manuals, Instructions, and Other Collateral Materials* (new in 2006)

ANSI Z535.7 *Product Safety Information in Electronic Media* (new in 2024)

Together, these seven standards contain the information needed to specify formats, colors, and symbols for safety signs used in environmental and facility applications; in product and product literature applications; in electronic media; and in temporary safety tag and barricade tape applications.

Published separately is the ANSI Z535 *Safety Color Chart*. This chart gives the user a sample of each of the safety colors: red, orange, yellow, green, blue, purple, brown, gray, white, and black. It also describes each color's ink formulation and closest PANTONE® color.

This ANSI Z535.7 standard was prepared by Subcommittee Z535.7 on Product Safety Information in Electronic Media. The foreword and all the annexes are considered to be informative and are not an official part of this standard. In the vocabulary of writing standards, the word “informative” is meant to convey that the information presented is for informational purposes only and is not considered to be mandatory in nature. The body of this standard is “normative,” meaning that this information is considered to be mandatory.

This standard provides guidelines for the design of product safety information in electronic media. The core guidelines contained in this standard were initially published in this first edition of this standard. This first edition became available in 2024.

This standard was processed and approved for submittal to ANSI by the Accredited Standards Committee Z535 on Safety Signs and Colors. Committee approval of this standard does not necessarily imply that all committee members voted for its approval. At the time it approved this standard, the Z535 Committee had the following members:

Steve Hall, Chair
Judith Isaacson, Vice Chair
Paul Crampton, Secretary

Organization Represented	Name of Representative
Alamo Group (USA) Inc.	Brett Cohen Sam Gallegos (Alt.)
American Society of Safety Professionals	J. Paul Frantz Thomas F. Bresnahan (Alt.) Timothy Rhoades (Alt.)
American Welding Society	August Manz
Applied Materials	Edward Karl Edwin Palmero (Alt.)
Applied Safety and Ergonomics	Steve Hall Judith Isaacson (Alt.)
Association of Equipment Manufacturers	Valerie Lynch
B11 Standards, Inc	David Felinski
Bell Product Safety	Gary Bell
BILT Incorporated	Paul Ratcliffe Mike Wencel (Alt.)
Browning Arms Company	Larry Nelson
BRP	Marc Larouche Karl Richard (Alt.)
Caterpillar, Inc.	Luke Johnson Justin Rose (Alt.)
Clarion Safety Systems, LLC	Angela Lambert
Corelle Brands, LLC	Jennifer Pritchard
Dorris and Associates International, LLC	Nathan Dorris Eric Boelhouwer (Alt.)
Eagle Crusher Co.	Ryan Parsell
Graco Inc.	Angela Redlund-Spieker
Human Factors & Ergonomics Society	Michael Kalsher Harvey Cohen (Alt.)m, fr0
Human Factors & Safety Analytics, Inc.	B. Jay Martin
International Safety Equipment Association	Cristine Fargo
International Staple, Nail, and Tool Association	Rick Allen Stephanie Thompson (Alt.)
Law Office of Mathew Kundinger	Mathew Kundinger
Marhefka & Associates	Russell Marhefka
Nutron/GPI Association	Russ Butchko

National Electrical Manufacturers Association	Bill Pratt David Werba (Alt.)
Polyfuze	Matthew Stevenson Marty Mares (Alt.)
Power Tool Institute	Drew Hornick Mark Hickok (Alt.)
Rockwell Automation	John Ronn
Safety and Forensic Enterprises, LLC	Loren Mills
Snap-on Tools	Dan Eggert
Taylor Communications	Jody Dombeck Christopher Rone
Travelers Insurance Company	David Roy Joe Bailey (Alt.)
U. S. Consumer Product Safety Commission	Tim Smith
Underwriters Laboratories	Richard Olesen
USDA Rural Development Utilities Program	Trung Hiu
Vigilante Consulting, LLC	William Vigilante

At the time it prepared this edition of ANSI Z535.7 for Z535 Committee vote, Subcommittee Z535.7 on Product Safety Information in Electronic Media had the following members:

Eric Boelhouwer, Chair

Paul Crampton, Secretary

Organization Represented	**Name of Representative**
Jared Frantz	Applied Safety & Ergonomics (A Rimkus Company)
Judith Isaacson	Applied Safety & Ergonomics (A Rimkus Company)
Farheen Khan	Applied Safety & Ergonomics (A Rimkus Company)
Scott Kaiser	Shook, Hardy & Bacon L.L.P.
Angela Lambert	Clarion Safety Systems
John Mackenzie	Schneider Electric
Bill Pratt	Schneider Electric
Angela Redlund-Spieker	Graco, Inc.
Timothy Smith	U.S. Consumer Product Safety Commission

<This page is intentionally left blank.>

1 Introduction

Historically, there has been a lack of widely available or generally applicable graphic systems for presenting safety information in electronic media. The absence of such systems, combined with the increased awareness and use of ANSI Z535.4, *Standard for Product Safety Signs and Labels*, and ANSI Z535.6, *Standard for Product Safety Information in Product Manuals, Instructions, and Other Collateral Materials*, has led to attempts to apply various aspects of ANSI Z535.4 and ANSI Z535.6 to the presentation of safety information in electronic media. Since ANSI Z535.4 was not designed for that purpose, it is not well-suited for broad application beyond the domain of product safety signs and labels. While ANSI Z535.6 does apply to printable electronic documents, and some aspects of the standard can serve as a reference for the design of product safety information for some types of electronic media, ANSI Z535.6 specifically excludes “audio and video materials, or dynamic or electronic media (e.g., electronic documents with animation, sound, or other features that are not printable).” See Section 4.2 of ANSI Z535.6-20XX. The limited applicability of these standards stems from differences between traditional static media such as product signs, labels, and printed documents and the numerous forms of electronic media.

Electronic media can vary significantly in terms of their format, purpose, content, and/or length. Electronic media take a vast array of forms. For example, electronic media may include but are not necessarily limited to video, on-product electronic displays, websites, apps, and augmented reality. Different formats for safety messages may be required and/or expected compared to printed information.

There are also differences that may exist between safety information in electronic media and safety messages for printed materials, including product safety signs and labels, product manuals, instructions, and other collateral materials. For example:

Electronic media can:

- be dynamic, using video or animations;
- include both visual and auditory components;
- be interactive;
- contain information not accessed in a linear fashion (i.e., not page by page) and/or that can be reached from multiple access points (e.g., links from different locations leading to the same destination);
- contain information in multiple locations (either temporally or within a system) that cannot be viewed simultaneously; and
- provide information that would be impractical or impossible to provide on product safety signs or in printed product manuals (e.g., rapidly or automatically updating information; situationally based information, etc.).

Presentation may vary by device, operating system, etc., outside of the control of the manufacturer. For example, if the same content is accessed via a smartphone or a computer, the appearance to the user may vary depending on the device type and size, resolution, color rendering, display settings, etc.

To respond to these differences, this standard sets forth a communication system developed specifically for product safety information in electronic media. It incorporates elements of the graphical approaches used by other ANSI Z535-series standards into a common design direction selected to provide product safety information in an orderly and visually consistent manner.