



ANSI/AIHA Z88.7-2001
Revision of ANSI K 13.1-1973

American National Standard for

Color Coding of Air-Purifying Respirator Canisters, Cartridges, and Filters



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American Industrial Hygiene Association

ANSI/AIHA Z88.7–2001
Revision of
ANSI K 13.1–1973

American National Standard —
Color Coding of Air-Purifying
Respirator Canisters,
Cartridges, and Filters

Secretariat

American Industrial Hygiene Association

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American National Standards Institute, Inc.

American National Standard

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This is a preview of "ANSI/AIHA Z88.7-2001". [Click here to purchase the full version from the ANSI store.](#)

Foreword (This foreword is not a part of American National Standard ANSI/AIHA Z88.7–2001)

Manufacturers, users, and governmental regulatory agencies will find this standard to be a valuable tool for accurate and rapid identification of selected industrial respiratory protective devices by examination of their respective canisters, cartridges, or filters. Readily recognizable colors are specified for canister, cartridge, or filter body or labels. Color specification utilizing the Munsell system will result in uniform cartridge, canister, filter body, and label colors among respirator manufacturers. American National Standards Committee Z88.7 on Color-Coding of Air-Purifying Respirator canisters, cartridges, and filters under whose jurisdiction this standard was developed, has the following scope:

The requirements of this standard apply to the identification of air-purifying respirator canisters, cartridges, and filters used to provide respiratory protection against gases, vapors, or particles. These requirements apply to cartridges and canisters used in industrial or healthcare facilities, office buildings, mines, ships, confined spaces, wildland fire-fighting, or other similar locations. These requirements do not apply to canisters, cartridges, or filters used on:

- a) aviation respirators
- b) military respirators
- c) respirators not approved by NIOSH (National Institute for Occupational Safety and Health)

This standard was originally published as American National Standard K13.1–1973. Changes have been made to reflect currently available color specifications and to eliminate reference to labeling requirements.

New technology and research continues to change this field and it is hoped that future versions of the standard will reflect this growth in knowledge. Suggestions for improvement are welcome. They should be sent to Attn: ANSI, American Industrial Hygiene Association, 2700 Prosperity Avenue, Suite 250, Fairfax, VA 22031.

This standard was processed and approved for submittal to ANSI by the Accredited Standards Committee on Respiratory Protection. Consensus was reached through a process involving the entire Z88 Committee in a series of reviews and in the final vote of approval. Committee approval of the standard does not necessarily imply that all committee members voted for its approval. At the time it approved this standard, the Z88 Committee had the following members:

Jim Johnson, Chair
Stephan Graham, Vice Chair
David Gillum, Secretariat Representative

<i>Organization Represented</i>	<i>Name of Representative</i>
American Automobile Manufacturers Association	Sarunas Mingela
American College of Environmental and Occupational Medicine	Ross Clay
American Gas Association	Kimberly Denbow
American Industrial Hygiene Association	Craig Colton, Jack Schill*
American Iron and Steel Institute	Peter Hernandez
American Petroleum Institute	Christopher Williams, Gerry Walker*
American Welding Society	Stephen Hedrick
Con Edison Company of New York	Jeanine Prud'homme
Department of the Army - Office of the Surgeon General	Stephan Graham, Irene Richardson*
Goodyear Tire and Rubber Company	Joseph Holtshouser
GPU Nuclear Corporation	Earl Gee

Health Physics Society	Herman Cember
<i>Organization Represented</i>	<i>Name of Representative</i>
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International Association of Firefighters	Richard Duffy
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North Safety Products	William Newcomb
NIOSH Mining Health and Safety	John Kovac
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U.S. Department of Labor	John Steelnack, Chappell Pierce*
U.S. NRC Emergency Preparedness and Radiation Protection Branch	James Wigginton

Individual Members

Ching-tsen Bien
Darell Bevis
Tom Nelson
Earle P. Shoub

* indicates alternate

Subcommittee Z88.7 for the Color Coding of Air-Purifying Respirator Canisters, Cartridges, and Filters, which developed this standard, had the following members:

Richard Stein, Chair
Judy Hudnall
Gary Nelson
Bill Newcomb
Jay Parker

American National Standard — Color Coding of Air-Purifying Respirator Canisters, Cartridges, and Filters

1. Purpose

The purpose of this standard is to establish a system of marking air-purifying respirator canisters, cartridges, and filters by means of colors in order to:

1. Facilitate rapid identification of the canisters, cartridges, and filters by users.
2. Ensure color consistency among respirator manufacturers.

2. Scope

The requirements of this standard apply to the identification of air-purifying respirator canisters, cartridges, and filters used to provide respiratory protection against gases, vapors, or particles. These requirements apply to canisters, cartridges, or filters used in industrial or healthcare facilities, office buildings, mines, ships, confined spaces, wildland fire-fighting, or other similar locations. These requirements do not apply to and shall not be used to identify canisters, cartridges, or filters for:

- a) aviation respirators
- b) military respirators
- c) respirators not approved by NIOSH (National Institute for Occupational Safety and Health)⁽¹⁾

Users of this standard should be aware that regulatory agencies might have requirements that are different from this standard.

3. Application

The manufacturers of air-purifying respirator canisters, cartridges, or filters which fall within the scope

of this standard shall verify that all of these canisters, cartridges, or filters are properly color-coded according to these requirements before they are delivered into the stream of commerce.

4. Definitions

4.1 Air-purifying respirator: A respirator in which ambient air is passed through an air-purifying element(s) that remove(s) the contaminant(s). Air is passed through the air-purifying element(s) by means of the breathing action or by a blower.

4.2 canister/cartridge: A container with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.

4.3 filter: A component used in respirators to remove solid or liquid aerosols from the inspired air.

4.4 Munsell Notation: A means for specifying the colors of objects.⁽²⁾

5. Colors

5.1 Each respirator canister, cartridge, filter, or canister or cartridge label shall be a distinctive color as indicated in Table 1.

5.2 Where respirator canisters, cartridges, or filters are colored to conform to this standard, each color shall be visible at a distance of one meter.

5.3 All colors used shall conform to the Munsell Notation.

5.4 Where labels only are colored to conform to this standard, the canister, cartridge, or filter body shall be gray (Munsell Notation N5.5/), or a metal