

INCH-POUND

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SUPERSEDING

MIL-STD-1202

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MILITARY STANDARD
FACESHIELD, INDUSTRIAL



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FOREWORD

1. This Military Standard is approved for use by all Departments and Agencies of the Department of Defense.
2. Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, U.S. Army Chemical Research, Development and Engineering Center, Attn: SMCCR-SPD-TS, Aberdeen Proving Ground, MD 21010-5423, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.
3. This standard is approved for use by all Departments and Agencies of the Department of Defense in the selection of items for application. It is intended to prevent the entry of unnecessary items (sizes, types, varieties) into the Department of Defense logistics system. This document is not intended to restrict any service in selecting new items resulting from state-of-the-art changes.

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1. SCOPE

1.1 Scope. The purpose of this standard is to present the nomenclature, specification requirements, military uses, and safety information for industrial faceshields. This standard does not necessarily include all of those items which are commercially available. It does contain items preferred for use in the selection of industrial faceshields for application by the Department of Defense.

1.2 Application. Industrial faceshields are used by personnel for protection of the face from flying particles and sprays of hazardous liquids.

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2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

FEDERAL

A-A-1770 - Faceshield, Industrial
L-F-36 - Faceshield, Industrial

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Naval Publications and Forms Center, (ATTN: NPODS), 5801 Tabor Avenue, Philadelphia, PA 19120-5099.)

2.1.2 Other Government documents, drawings and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

CODE OF FEDERAL REGULATIONS (CFR)

Title 29 - Department Of Labor, Occupational Safety And Health
Chapter XVII Administration

DEPARTMENT OF DEFENSE (DOD)

DOD 4160.21-M - Defense Utilization And Disposal Manual

(Copies of specifications, standards, handbooks, drawings, and publications required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting officer.)

2.2 Non-Government publications. The following document(s) form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

AMERICAN NATIONAL STANDARDS INSTITUTE, INC. (ANSI)

ANSI Z87.1 - American National Standard Practice for Occupational and Educational Eye and Face Protection

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(Application for copies should be addressed to American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.)

(Non-Government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.3 Order of precedence. In the event of a conflict between the test of this document and the references cited herein, the test of this takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

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3. DEFINITIONS

The following definitions are in accordance with ANSI Z87.1.

3.1 Faceshield. A device worn in front of the eyes, and a portion of or all of the face, to supplement protection afforded by a primary protective device for the eyes.

3.2 Headband. That part of the headgear consisting of a band that encircles the head.

3.3 Headgear. That part of a faceshield that supports the device on the wearer's head; usually consisting of a headband and crown strap.

3.4 Protector. A device that provides face or eye protection against the hazards of processes encountered in employment, education, or the natural environment.

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4. GENERAL REQUIREMENTS

4.1 Packaging data and labeling. Packaging and labeling shall be in accordance with applicable procurement documents.

4.2 Safety. The Occupational Safety and Health Administration (OSHA) regulations applicable to face protection are stated in 29 CFR, section 1910.133. General requirements for face protection are stated in section 4 of ANSI Z87.1, which document was adopted and approved by DOD.

4.3 Storage. Industrial faceshields shall be stored in their shipping containers in a cool dry place, away from heat sources and direct sunlight.

4.4 Disposal of excess or unserviceable material. To minimize disposal problems, it is recommended that no more than a one year's supply of each item listed in this standard be stocked. When stocks have been declared excess or unserviceable, they will be disposed of in accordance with the Defense Utilization and Disposal Manual, DoD 4160.21-M, and applicable DoD Policy Memoranda. Guidance can be obtained from the servicing Defense Utilization and Marketing Office (DRMO) on procedures required for proper reporting and turn-in.

4.5 DISCLAIMER. RECOMMENDED DISPOSAL INSTRUCTIONS ARE FORMULATED FOR USE BY ELEMENTS OF THE DEPARTMENT OF DEFENSE. THE UNITED STATES OF AMERICA IN NO MANNER WHATSOEVER EITHER EXPLICITLY OR IMPLICITLY WARRANTS, STATES, OR INTENDS SAID INSTRUCTION, TO HAVE ANY APPLICATION, USE OR VIABILITY BY OR TO ANY PERSON OR PERSONS CONTRACTING OUTSIDE THE DEPARTMENT OF DEFENSE OR ANY PERSON OR PERSONS CONTRACTING WITH ANY INSTRUMENTALITY OF THE UNITED STATES OF AMERICA AND DISCLAIMS ALL LIABILITY FOR SUCH USE. ANY PERSON USING THESE INSTRUCTIONS WHO IS NOT A MILITARY OR CIVILIAN EMPLOYEE OF THE UNITED STATES OF AMERICA SHOULD SEEK COMPETENT PROFESSIONAL ADVICE TO VERIFY AND ASSUME RESPONSIBILITY FOR THE SUITABILITY OF THESE INSTRUCTIONS TO THEIR PARTICULAR SITUATION REGARDLESS OF SIMILARITY TO A CORRESPONDING DEPARTMENT OF DEFENSE OR OTHER GOVERNMENT SITUATION.

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5. DETAILED REQUIREMENTS

5.1 Name. Faceshield, Industrial

5.1.1 Technical description. An industrial faceshield shall consist of a headgear, a window support, an optional crown protector, a window, and a sweatband.

5.1.2 Specifications.

A-A-1770, Faceshield, Industrial.

L-F-36, Faceshield, Industrial.

ANSI Z87.1 American National Standard Practice for Occupational and Educational Eye and Face Protection.

- a. A-A-1770 specifies one type of industrial faceshield with a headgear, a window support with a crown protector, a clear plastic window, and a removable and replaceable sweatband. Faceshields shall comply with the applicable requirements of ANSI Z87.
- b. Federal specification, L-F-36 specifies three styles and two classes of industrial faceshields:
 - (1) Style A - Without crown protector.
 - (2) Style B - With crown protector.
 - (3) Style C - Attachment, safety helmet.
 - (a) Class 1 - Full brim.
 - (b) Cap.

Materials used in the manufacture of faceshields shall combine mechanical strength and lightness of weight and shall be nonirritating to the skin. Metal parts shall be corrosion resistant. Plastic parts shall be slow burning. Faceshields shall comply with the applicable requirements of ANSI Z87.

- c. ANSI Z87.1 describes three styles of faceshields.
 - (1) Headgear without crown protector.
 - (2) Headgear with crown protector.
 - (3) Headgear with crown protector and chin protector.

An illustration of a faceshield without a crown protector is shown in Figure 1.

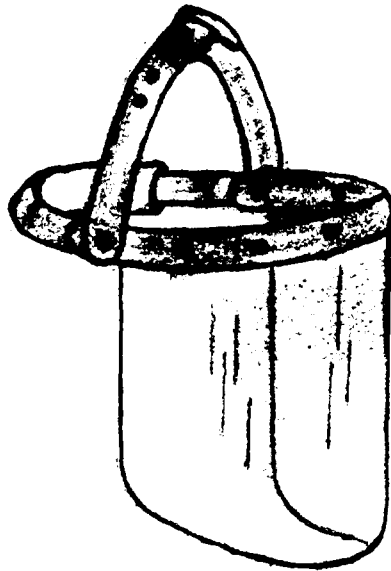


FIGURE 1. Faceshield without a crown protector.

An illustration of a faceshield with a crown protector is shown in Figure 2.

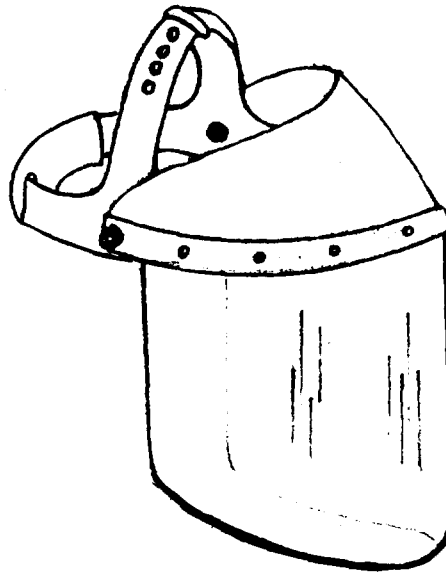


FIGURE 2. Faceshield with a crown protector.

The faceshield assembly shall consist essentially of a detachable window, a tilting support, an adjustable headgear; and as required, a crown protector and chin protector. The faceshields shall combine mechanical strength and lightness of weight; and shall be capable of withstanding frequent disinfection. Materials used shall be nonirritating to the skin. Metals used shall be resistant to corrosion for 50 hours. Plastic material shall be noncombustible or slow burning.

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5.1.2.1 Headgear.

- a. In accordance with A-A-1770, headgear shall be an adjustable positive locking, tilt-type window support type, adjustable for hat-band sizes 6-1/2 to 7-5/8 inches (165 to 193 mm). A non-toxic, nonirritating sweatband shall cover not less than the forehead portion of the headband.
- b. In accordance with L-F-36, headgear for style A faceshields shall be fabricated of vulcanized fiber, cellulose acetate butyrate or equal material of at least 0.055 inch (1.39 mm) thickness. Headgear shall consist of a crown band of at least one inch (25.4 mm) in width, and an adjustable headband and sweatband which shall conform to the applicable requirements of ANSI Z87.1. Adjustable bands shall be of the positive locking type with a hat size range of at least 6-5/8 to 7-5/8 inches (168 to 193 mm). Style B faceshield headgear shall be of the adjustable positive-locking type, and shall be similar to the requirements for style A headgear. Sweatbands for style A and B shall be nontoxic, nonirritating cushioning leather or imitation leather, and shall be of the removable and replaceable type. Sweatbands shall cover no less than the forehead portion of the headband.
- c. In accordance with ANSI Z87.1, the headgear shall consist of at least a headband and a crown strap. The headgear shall be made from materials having low heat conductivity. The design shall be such as to hold the window and window support comfortably and firmly in place on the wearer's head, and shall provide for tilting the window away from the face. The headgear shall be readily adjustable to head sizes from 6-1/2 to 7-5/8 without the use of tools. Adjusting devices, if used, shall hold firmly in place after being so adjusted. The crown strap or band shall be attached to, and extend between the front and rear centers or from the middle sides of the headband. It shall form an arc over the head to assist in positioning and holding the headgear in place. Adjusting devices, if used, shall be positive and shall hold firmly in place after being so adjusted. All mechanisms and movement shall be protected so that the wearer's hair cannot catch in the adjusting devices. If required, not less than the forehead portion of the headband shall be provided with a removable and replaceable cushioned sweatband that shall be known to be substantially nonirritating to the skin and nontoxic.

The crown protector shall be shaped to cover at least the frontal portion of the head and shall extend around each side at least to a vertical line at the front of the ears. It may be designed to be an integral part of the window support, or it may be a separate assembly. The design shall be such as to provide a comfortable clearance over the forehead and head of the wearer. The chin protector shall be shaped to cover at least the chin and upper part of the neck. The design shall be such as to provide a comfortable clearance under the chin

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of the wearer. The crown protector and chin protector shall be made of suitable material having an impact resistance not less than that of the plastic window. The crown protector is used in conjunction with the chin protector for protection against sprays of hazardous liquids.

The headgear can be replaced by an impact resistant hat or cap or other suitable device to which the window support is connected. The attachment may be either fixed or swiveled.

5.1.2.2 Window Support.

- a. In accordance with A-A-1770, the window support shall be furnished with a crown protector of at least 2-3/4 inches (70 mm) wide from the top of the window support at its maximum width.
- b. In accordance with L-F-36, the style A faceshield window support shall be furnished without a crown protector. The style B faceshield window support shall be furnished with a crown protector of at least 2-3/4 inches (70 mm) wide from the top of the window support at its maximum width. Window supports shall be made of vulcanized fiber, cellulose acetate butyrate, or equal material at least 0.060 inch (1.52 mm) thick, and designed for easy removal and replacement of windows. Crown protector material shall be the same as for the window supports. The support shall be attached to the headgear by friction joints which will permit tilting of the window either upward or downward. The tension of the tilting mechanism shall be sufficient to hold the window in an up or down position without slippage. The upward position shall be clear of the horizontal vision line. The downward position, for maximum protection, shall leave clearance for the nose and eyeglasses or goggles if used.
- c. In accordance with ANSI Z87.1, a window-supporting or window-holding member, which shall be a band or crown protector, shall be attached to the headgear. The window support shall position the window in front of the face in such a manner as to provide clearance for the nose and safety spectacles of the wearer. The attachment of the window to the window support shall be such as to permit easy removal and replacement. A crown protector may be designed as an integral part of the window support. The window support shall be made of suitable material. It shall be pivotally attached to the sides of the headgear to permit easy tilting, either upward or downward, of the supporting member and of the window attached thereto. The windows shall be capable of being tilted sufficiently upward so that the center of the bottom edge shall be out of the line of horizontal vision. The tension of the tilting mechanism shall be sufficient to hold the window without slippage in either the up or the down position.

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5.1.2.3 Windows.

- a. In accordance with A-A-1770, faceshield windows shall be clear plastic, with a minimum thickness of 0.040 inches (1.02 mm), a width of 18 ± 1 inches (457 ± 25 mm), and a length of 9 ± 1 inch (229 ± 25 mm).
- b. In accordance with L-F-36, faceshield windows shall be clear plastic with a minimum thickness of 0.040 inches (1.02 mm) conforming to the sizes shown in Table I.

TABLE I. Faceshield windows.

| Y Size Number | Dimensions - Nominal ± 1 in (25 mm) | | | |
|---------------------|---|-----|--------|-----|
| | Width | | Length | |
| | in | mm | in | mm |
| 3 | 11-1/2 | 292 | 8 | 203 |
| 4 | 18 | 457 | 9 | 229 |

Style A faceshields shall be furnished with size No. 3 windows.

Style B faceshields shall be furnished with size No. 4 windows.

Style C, class 1 faceshield windows shall be not less than size No. 4.

Style C, class 2 faceshield windows shall be not less than size No. 3.

Special windows, such as wire mesh, fiber with window, shaded green plastic, special sizes or thickness, shall be designed to fit the window support and be interchangeable with clear plastic windows of the same manufacturer.

- c. In accordance with ANSI Z87.1, windows may be supplied in any of the following styles.
 - (1) Clear transparent
 - (2) Colored transparent
 - (3) Wire screen
 - (4) Combination of plastic and wire screen
 - (5) Opaque window with filter plate mounting

Windows shall not be less than 9-1/2 inches (241 mm) wide at the top and 8-1/2 inches (216 mm) wide at the bottom, and not less than 6 inches (152 mm) high, measured over their curved surfaces when attached and in position on the window support. Windows when used in frames shall be not less than 4-1/4 inches (108 mm) wide and 2 inches (50.8 mm) high, and the frame shall conform to the dimensions specified for windows without frames. Plastic windows shall be not less than 0.04 inch (1.0 mm) thick. Wire screen windows shall have a mesh of not less than 20. Plastic windows shall meet physical

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requirements for impact resistance, penetration resistance, luminous transmittance, and flammability resistance when tested as specified. In addition, both surfaces of faceshield windows shall be visibly free of striae, waves, and flows; and shall also be free of bubbles, warpage, or other defects which would impair their optical quality. Clear faceshield windows shall exhibit not more than 6 percent haze when tested as specified in accordance with subparagraph 6.3.2.5 of ANSI Z87.1.

5.1.3 Use. Industrial faceshields are intended for use by Department of Defense personnel for protection to the face, including forehead, cheeks, nose, mouth, chin, and the frontal portion of the neck, from flying particles and sprays of hazardous liquids; and also to provide antiglare protection where required. Typical operations where faceshields can be used include but are not limited to the following:

- a. Woodworking operations
- b. Metal machining
- c. Buffing, polishing, wirebrushing and grinding
- d. Spot welding
- e. Handling hot or corrosive materials.
- f. Laboratory work

Commercial applications are the same.

5.1.4 Packaging data and labeling. (Refer to 4.1)

5.1.5 Safety. Industrial faceshields shall only be worn over suitable basic eye protection devices. Industrial faceshields are not acceptable for protection against heavy flying objects, and intense radiant energy. They shall not be employed in gas or arc welding, burning, and cutting operations. (Refer to 4.2)

5.1.6 Storage. (Refer to 4.3)

5.1.7 Disposal of excess or unserviceable material. (Refer to 4.4)

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6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. This standard is intended for use by Department of Defense personnel in the selection of preferred industrial faceshields.

6.2 Issue of DODISS. When this standard is used in acquisition, the applicable issue of the DODISS must be cited in the solicitation (see 2.1.1, and 2.2).

6.3 Subject term (key word) listing.

Chin protector
Crown band
Crown protector
Crown strap
Eye protector
Face protector
Faceshield, industrial
Faceshield window
Headband
Headgear
Industrial faceshield
Sweatband
Window, faceshield
Window support

6.4 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

6.5 Abbreviations. The use of abbreviations are in accordance with MIL-STD-12 where applicable. Metric system abbreviations and symbols are in accordance with ASTM E 380.

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