4 June 1970 SUPERSEDING MIL-G-635B 22 November 1965

#### MILITARY SPECIFICATION

# GOGGLES, SUN, WIND AND DUST

This specification is mandatory for use by all Departments and Agencies of the Department of Defense.

#### 1. SCOPE

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- 1.1 Scope. This specification covers one type of rubber frame goggles with plastic lens inserts.
- 1.2 Classification. The goggles shall be one type with two classes of lens (see 6.2):

Class 1 - Clear Class 2 - Neutral gray

# 2. APPLICABLE DOCUMENTS

2.1 The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

## **SPECIFICATIONS**

## FEDERAL

L-P-504	- Plastic Sheet and Film, Cellulose Acetate.
V-T-285	- Thread, Polyester.
JJ-W-155	- Webbing, Textile, (Cotton, Elastic)
QQ-B-613	- Brass, Leaded and Nonleaded: Flat Products
	(Plate, Bar, Sheet, and Strip).
CCC-D-950	- Dyeing and Aftertreating Processes for Cotton Cloths.

FSC 8465

PPP-B-636	- Box, Fiberboard.
PPP-B-665	- Boxes; Paperboard, Metal Stayed (Including Stay Material).
PPP-B-676	- Boxes, Setup.
PPP-F-320	- Fiberboard; Corrugated and Solid, Sheet Stock (Container Grade), and Cut Shapes.
PPP-T-45	- Tape, Gummed, Paper, Reinforced and Plain, For Sealing and Securing.

## **MILITARY**

MIL-F-495 - Finish, Chemical, Black, for Copper Alloys. MIL-R-3065 - Rubber, Fabricated Products.

## STANDARDS

## FEDERAL

_	Textile To	est Meti	nods	•
-	Plastics:	Method	is of	f Testing.
_	Stitches,	Seams,	and	Stitchings.
	-	- Plastics:	- Plastics: Method	- Textile Test Methods - Plastics: Methods of - Stitches, Seams, and

## **MILITARY**

MIL-STD-105	- Sampling Procedures and Tables for Inspection by
	Attributes.
MIL-STD-129	- Marking for Shipment and Storage.
MIL-STD-130	- Identification Marking of U. S. Military Property.
MIL-STD-147	- Palletized and Containerized Unit Loads 40" x 48"
	Pallets, Skids, Runners, or Pallet-Type Base.
MIL-STD-417	- Rubber Compositions, Vulcanized General Purpose,
	Solid (Symbols and Tests).

# DRAWINGS

## ARMY NATICK LABORATORIES

2-1-95	- Goggles, Sun, Wind and Dust; Assembly and Details.
2-1-96	- Goggles, Sun, Wind and Dust; Rubber Mask Sections.

(Miniature copies of Drawings 2-1-95 and 2-1-96 identified as figures 1 and 2 respectively are attached for information purposes only.)

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

\* 2.2 Other publications.— The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply:

NATIONAL MOTOR FREIGHT TRAFFIC ASSOCIATION, INC.

National Motor Freight Classification

(Application for copies should be addressed to American Trucking Associations, ATTN: Tariff Order Section, 1616 P Street, N.W., Washington, D. C. 20036.)

#### UNIFORM CLASSIFICATION COMMITTEE

## Uniform Freight Classification

(Application for copies should be addressed to the Uniform Classification Committee, Room 202 Union Station, 516 W. Jackson Blvd., Chicago, Illinois 60606.)

## 3. REQUIREMENTS

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\* 3.1 First article.— When specified (see 6.2), before production is commenced, 5 samples of the finished goggles complete with carrying container (see 5.1.1.2.1) shall be submitted or made ready for the contracting officer or his authorized representative for inspection specified in 4.2. The approval of the preproduction sample authorizes the commencement of production but does not relieve the supplier of responsibility for compliance with all applicable provisions of this specification. The preproduction samples shall be manufactured by the supplier in the same facilities to be used for the manufacture of the production items.

## 3.2 Material and components .-

3.2.1 Rubber.- The rubber for the molded rubber face mask shall be made of a rubber compound having polychloroprene as the base material and shall meet the requirements of type, class, grade and suffix letters, SC515A<sub>1</sub>G of MIL-STD-417 and the requirements of MIL-R-3065.

- 3.2.2 Plastic. The plastic sheet used for the lenses shall be clear cellulose acetate butyrate.
- 3.2.2.1 <u>Cellulose acetate butyrate.</u>— The cellulose acetate butyrate shall be of optical quality, slow burning, uniform and of a construction necessary to produce lenses meeting the requirements of this specification. The cellulose acetate butyrate shall meet the optical requirements specified in L-P-504 for type III material except that the luminous transmittance for class 2 lens shall be 9 percent to 15 percent.
- 3.2.3 Webbing, cotton, elastic.— The elastic webbing for the headband shall conform to type I, class 3 of JJ-W-155, except that the webbing shall be mildew resistant treated and the fungicide content shall be 0.5 percent to 1.0 percent based on the cotton component of the webbing only. The color of the webbing shall be Olive Drab 7.
  - 3.2.4 Cloth, cotton, flannelette.— The cloth for the filtering screen shall be commercial cotton flannelette dyed black with direct colors and napped on one side only. The cloth shall have a minimum weight of 4.0 ounces per square yard and a minimum texture of 42 ends per inch and 40 picks per inch when tested as specified in 4.3.1.
  - 3.2.4.1 <u>Mildew resistance.</u>— The mildew resistant treatment of the cotton flannelette shall conform to CCC-D-950 except that the inhibitor "a" fungicide content shall be 0.5 percent to 1.0 percent and shall meet all the requirements applied to inhibitor "a", and the soil burial test shall not apply.
  - 3.2.5 <u>Thread, polyester.</u>— The polyester thread shall conform to letter size E, type I, class 1 or type II, class 1 of V-T-285. The thread shall be dyed Olive Drab S-1 (C.A. 66022).
- 3.2.5.1 <u>Colorfastness</u>.— The dyed thread shall show fastness to light and perspiration equal to or better than the standard sample. When no standard sample is available, the dyed thread shall show good fastness to light and perspiration.
- 3.2.6 <u>Cement.</u>— The cement used in attaching the screen cloth to the rubber frame of the goggles shall be a cement made from polychloroprene.
  - .3.2.7 Metal components.-

- 3.2.7.1 Buckle, quick release. The quick release buckle shall be 1/4 or 1/2 hard brass, any composition conforming to QQ-B-613 and shall conform to design, dimensions and size as shown on Drawing 2-1-95. The teeth, when closed, shall not tear the elastic webbing.
- 3.2.7.2 Slide. The clide shall be hard brass conforming to QQ-B-613, any composition and shall be of the design, dimensions and size as shown on Drawing 2-1-95.
- 3.2.7.3 Grommets.— The grommets shall be 1/4 hard brass, any composition conforming to QQ-B-613. The design, dimensions and size shall be as shown on Drawing 2-1-95.
- \* 3.2.7.4 Snap fasteners.— The snap fasteners shall be brass, any composition conforming to QQ-B-613. The following components of the snap fastener shall be United-Carr, Inc., numbers or equal: Button No. 20114, 12 line size; Socket No. 20201; Stud No. 20305; Eyelet No. 20401.
  - 3.2.8 Finish. All metal parts shall be given a black chemical finish conforming to MIL-F-495.
    - 3.3 Design and construction .-
  - 3.3.1 Frame. The rubber conforming to 3.2.1 shall be molded to form a one piece frame having the dimensions shown in Drawings 2-1-95 and 2-1-96. The design shall be such as to accomodate the plastic lens as shown, to provide binocular vision, to hold the inner surface of the lens away from the eyes a sufficient distance for adequate eyelash clearance, and to provide circulation of air to the interior of the goggles. The portion of the frame contacting the face shall be stippled.
  - 3.3.2 <u>Headband.</u>— The headband shall be constructed as shown on Drawing 2-1-95 using the webbing specified in 3.2.3.
  - 3.3.3 Cloth, screen, filtering.— The napped side of the filtering screen cloth conforming to 3.2.4 shall be cemented on the inside of the frame with the cement specified in 3.2.6 and shall cover all ventilation holes. One piece of cloth shall be used to cover all the ventilation holes on the right side, the second piece of cloth shall be used to cover all the ventilation holes and the ventilation holes are left side.
  - 3.3.4 Stitching.— All stitching shall be accomplished with the thread specified in 3.2.5 and shall conform to type 301 of FED-STD-751 with 8 to 12 stitches per inch. Ends of all stitching shall be backtacked not less than 1/2 inch. Thread breaks shall be secured by backtacking the break not less than 1/2 inch. Thread tension shall be maintained so that there shall be no loose stitching and that the lock shall be embedded in the materials sewed. All thread ends shall be trimmed.

## 3.3.5 Lenses.-

- \* 3.3.5.1 Class 1 and 2.- Class 1 and 2 lenses shall be blanked or cut to the shape and size shown in Drawing 2-1-95. The thickness shall be not less than 0.026 inches or more than 0.038 inches. The slots in each lens shall be strengthened with the brass grommets specified in 3.2.7.3. The shape of each lens shall be such that when inserted in the frame, the lens shall conform to the curvature of the frame and fit snugly therein.
  - 3.3.5.2 Color (class 2 only).— The color of the lens shall be essentially neutral gray having the following trichromatic characteristics when tested as specified in 4.3.1 (see 6.3):

Percent YT = 9 percent to 15 percent

x = 0.273 to 0.345

y = 0.306 to 0.356

- 3.3.6 Goggles, complete. Each of the goggles shall be furnished with a class 1 lens inserted in the frame.
  - 3.4 Performance.-
- 3.4.1 Optical qualities. Class 1 and 2 lenses shall show no distortion and shall be optically clear when visually examined as specified in 4.3.2.1.
- 3.4.1.1 Aging. Class 1 and 2 lenses shall show no discoloration, bubble or surface deterioration when tested for aging as specified in 4.3.1.
  - 3.5 Marking.-
- 3.5.1 Frame. Each frame shall be permanently and distinctly marked with the information shown in Drawing 2-1-95 in the location specified, and in accordance with MIL-STD-130.
- 3.6 Workmanship.— The frame, metal parts, and lenses of the goggles shall be free from the defects referred to herein to the extent permitted by the applicable quality levels in section 4. The frame shall be clean, well made and free from surface blemishes, pinholes, excess edge trim, sponginess and cracks, and shall have an accuracy of fit for the lens. The metal parts shall be finished smooth, and free of sharp edges or any irregularities which may cut or scratch the wearer. The lenses shall be clean and substantially free from superficial undulations, lenticulations, striae, bubbles, seeds, scratches, opaque particles or other imperfections, which will impair the visual properties.

## 4. QUALITY ASSURANCE PROVISIONS

- A.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or purchase order, the supplier may use his own or any other facilities suitable for the performance of the inspection residenests specified herein, unless disapproved by the Government. The Covernment reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.
- \* 4.1.1 <u>Certificate of compliance</u>. Where certificates of compliance are submitted, the Government reserves the right to check test such items to determine the validity of the certification.
- \$ 4.2 First article inspection. When required, the preproduction sample submitted in accordance with 3.1, shall be inspected as specified in 4.3.2.1, 4.3.2.2 and 4.3.2.3 for compliance with design, construction, workmanship, dimensional, and disassembly and assembly requirements.
  - 4.3 Inspection. Sampling for inspection shall be performed in accordance with MIL-SID-105 except when otherwise indicated hereinafter.
- \* 4.3.1 Component and material inspection. In accordance with 4.1 above, components and materials shall be inspected and tested in accordance with all the requirements of referenced specifications, drawings, and standards unless otherwise excluded, emended, modified or qualified in this specification or applicable purchase document. Inspection shall be performed on components listed in table II for the test characteristics shown. The sample size for the designated lot size shall be as shown in table I. There shall be no evidence of failure of any sample unit to meet the requirements as specified.

TABLE I .- Sampling for testing

Lot size	Sample size
800 or less 801 up to and including 22,000	2
22,001 and more	5

All tests reports shall contain the individual values utilized in expressing the final results.

TABLE II.- Component tests

Component and lot expressed in terms of	Characteristic	Requirement paragraph	Test method	Number determinations per sample unit	Results reported as	Sample unit
Cloth, flannelette (1 yard)	Weight, ounces per square yard	3.2.4	Method 5041 FED-STD-191	5	Average of 5 det, to nearest 0.1 oz. per sq. yard	
	Texture, yarns per inch	3.2.4	Method 5050 FED-STD-191	ς.	Average of 5 det, to nearest whole number	} J yard
Lenses (units of 100 lenses):						
Class 1	Thickness Aging	3.3.5.1	4.4.1	нн	Pass or fail Pass or fail	2 lenses
Class 2	Thickness Color Aging Luminous transmittance	3.3.5.1 3.3.5.2 3.4.1.1 3.2.2.1	1/ 4.4.2 4.4.1 Method	<b>.</b>	Pass or fail Pass or fail Pass or fail To nearest	>3 lenses
			FED-STD-406		1	_

1/ A micrometer caliper capable of measuring to within plus or minus 0.0001 inch shall be used.

4.3.1.1 Certificate of compliance. Components and materials listed below may be accepted on the basis of a supplier's certificate of compliance to the contracting officer for the requirements specified in the applicable peragraphs of this specification.

Component	Characteristic	Requirement paragraph
Rubber	Composition	3.2.1
Plastic	Composition, slow burning	3.2.2 and 3.2.2.1
Cloth, cotton,	Material identification	3.2.4
flannelette	Dyed with direct colors	3.2.4
	Napped on one side only	3.2.4
Cement	Composition	3.2.6
Buckle	Material, finish and	3.2.7.1, 3.2.8 and
	temper	Drawing 2-1-95
Slide	Material, finish and	3.2.7.2, 3.2.8 and
	temper	Drawing 2-1-95
Grownets	Material, finish and	3,2,7,3, 3,2.8 and
	temper	Drawing 2-1-95
Snap fastener	Material and finish	3.2.7.4 and 3.2.8

- 4.3.2 Examination of the end item. The end item shall be examined in accordance with applicable sub-paragraphs at the inspection levels and acceptable quality levels (AQLs) set forth in 4.3.2.7 for visual, dimensional, disassembly and assembly of lens to frame, and preparation for delivery defects. For examinations in 4.3.2.1, 4.3.2.2, and 4.3.2.3, the lot size shall be expressed in units of one pair of complete goggles with class 1 lens and one spare class 2 lens; and the sample unit shall be one pair of complete goggles with class 1 lens and one spare class 2 lens. The sample unit for lens examination shall be one lens when lenses are procured separately.
- 4.3.2.1 <u>Visual examination</u>.— The goggles and spare lenses shall be examined for defects in design, material, construction, workmanship and markings.
- NOTE: 1/ Defects so designated shall be classified as major when seriously affecting serviceability or appearance and minor when affecting serviceability or appearance but not seriously.

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		Classi	ficat	ion
Examine	Defect	Major	1/	Minor
Quality of material (rubber face mask)	Crack extending through body. Surface crack, not extending through body.	Х		X
	Blister or contact scar, over 1/4 in in largest dimension.	ch X		
	Blister or contact scar, over 1/64 inch but less than 1/4 inch in large dimension,	est		X
	Rough surface, e.g., multiple small lumps or blisters (except on portion contacting face).	n	<u>1</u> /	_
	Rubber is not solid, i.e., any undesirable sponginess or porosity.		_ <u>1</u> /	
	Excess flash or poor trim, Not molded in one piece,	x	1/	X
	Lump, void or abrasion. Any cut, puncture, sharp crease, wrinkle or tear.	x	<u>1</u> /	
	Hole, other than pinhole.  Any pinhole more than 1/16 inch in	X		
	largest dimension.  More than 2 pinholes, 1/16 inch or less in largest dimension, in any			X
	one square inch of surface area. Objectionable odor (other than odor			x
	typical of rubber).			X
Plastic lenses in frame, spares,	Not specified type. Not optically clear.	X X		
or procured separately	Cracks or objectionable roughness. Stain or discordoration not readily removed by washing with water or steaming with breath, then wiping	X		
	dry with soft cloth or toilet paper. Scratch, seed, bubble, opaque particles or other imperfection.	. х	<u>1</u> /	
	Superficial undulation, lenticulation or striae which impairs vision.  Not clean; presence of any imbedded particle, dirt, grit or other	n -X	<del>-</del>	·
	foreign matter.	X		

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Lxamine	Defect	Major	<u>1</u> /	Minor
nobbing	Color not as specified.			x
	Color offshade, mottled or streaky.  Clearly noticeable crystallization of			X
	mildew inhibitor.		1/	
	Cut, hole or tear.	X		
	Frayed or scalloped edge; not tightly		1/	
	or firmly woven. Broken or missing end:		1/	
	- Rubber, one or more.	X		
	- Cotton, two or more contiguous.	x		
	- Cotton, one.			X
	Broken or missing pick: - Two or more contiguous, regardless			
	of length,	x		
	- Single, more than one inch in length	ì •		X
Thread, polyester	Not color specified.		1/	
Metal components:	Not specified type, size or design.	Х		
slide, grommets,	Finish flakes or rubs off.		1/	
buckle, snap	Evidence of corrosion.  Broken, cracked, fractured, damaged,	x		
fasteners	malformed, bent out of shape or			
	otherwise impaired.		<u>1</u> /	
Design and	Varies from design, contour or con-			
construction	struction shown on specified drawing	х		
	or approved sample.  Any characteristics not in accordance	Λ		
	with specified design, e.g., not			
	designed to accommodate plastic lens of	Œ		
	to provide binocular vision, adequate eyelash clearance, or circulation of			
	air to interior of goggles.	x		
Workmanship	Frame malformed, bent out of shape			
and assembly	or otherwise impaired.		1/	
	Size or shape of ventilator holes other than specified.			v
	Ventilator hole missing.			X X
	Row of ventilator holes missing.	X		
	Ventilator holes not spaced around		1/	
	frame as shown on drawing.		1/	

		Class	ific	ation	
Examine	Defect	Major	<u>1</u> /	Minor	
Workmanship and	Ventilator holes not covered by				
assembly (cont'd)	flanelette.	X			
	Snap fastener button not positioned in front of frame.	x			
	Snap fastener socket improperly	Α.			
•	clinched or may be detached.		1/		
	Snap fastener stud or socket mis-				
	positioned.		1/		
1	Webbing difficult to insert through		_		
:	frame slide slot or is distorted				
!	after insertion.			X	
	Buckle body or buckle tongue missing.	X			
	Buckle teeth missing or broken.	X			
	Buckle teeth tear headband in closed				
	position.  Buckle will not function as intended	X			
	or is otherwise impaired.	x			
	Buckle does not grip headband firmly.	Δ	1/		
	Slide or buckle not sewn to webbing		<i>≛</i> ′		•
	as shown on drawing.	x			
	Rough edge or burr on slide or buckle				
	which may cause fraying of headband.		1/		_
	Not specified stitch type on headband.		$\frac{1}{1}$		
•	One stitch per inch less than the		_		
	minimum specified.			X	
	Two or more stitches per inch less				
	than the minimum specified.	X			
	More than the maximum specified				
•	number of stitches per inch damaging webbing.	x			
	More than maximum number of stitches	Δ			
	per inch but not damaging webbing.			x	
	Thread breaks not backtacked as			Α	
	specified.			X	
	Ends of stitching not backtacked				
	as required.			X	
	Tight tension, resulting in ex-				
,	cessive puckering.			X	

## MTL-G-635C

o de la		Class	ific	eston
Skan <b>úne</b>	Dafec	rator	IJ	Mibor
Jorkwanship and	loose tension, i.e., lock not co-			
assembly (cont'd)	bodded in material sewed.			$\mathbf{x}$
-	Thread end not tripmes.			Ж
	Broken stitches, open seem or			
	run-off.		1/	
	Needle chews.		1/	
	Not hemmed as shown on drawing.		7/ 1/ 1/	
	Improper fitting of lens to frame,			
	i.e., does not conform to curvature			
	of frame and does not fit snugly.	X		
	Any component missing or improperly			
	assembled.	X		
	Hardware has protective finish			
	omitted; burrs or sharp edges.	X		
Macking	Missing, incomplete, illegible, mis-			
-	spelled, not specified type, not in			
	specified location, or not applied			
	in the specified manner.			X

- 4.3.2.2 <u>Dimensional examination</u>.— Any dimension that is not within the specified tolorance shall be classified as a defect.
  - 4.3.2.3 Examination of disassembly and assembly of Lone to from 2.

# Examine

# Defect

Lons removal

Rough edge on lens, i.e., not properly polished.
Grommet on lens not filmly fitted in lens slot.
Lens slot torn due to grommet attachment.
Shape of lens when inserted in frame does not conform to curvature of frame.
Lens does not fit snugly in frame.
Grommet missing.
Grommet broken or detached.
Rough edge on grommet or lens slot which may tear or abrade the webbing.

## Examine

# Defect

Frame

Snap fastener will not function as intended, i.e., fails to effect a secure closure or is exceptionally difficult to open.

Snap fastener stud or socket too tightly affixed resulting in damage to rubber base.

Snap fastener tears plastic lens upon insertion of lens into frame.

Stud not long enough to hold thickness of one lens and frame.

\* 4.3.2.4 Examination of preparation for delivery requirements.— An examination shall be made to determine that packaging, packing and marking comply with the section 5 requirements of this specification. Defects shall be scored in accordance with the list below. The sample unit shall be one shipping container fully prepared for delivery with the exception that it need not be sealed or palletized. Defects of closure listed below shall be examined on shipping containers fully prepared for delivery. The lot size shall be the number of shipping containers in the end item inspection lot.

Marking (exterior and interior)

Omitted; incorrect; illegible; of improper size, sequence, location, or method of application.

Materials

Any component missing.

Any component damaged, affecting serviceability.

Workmanship

Inadequate application of components, such as: polyethylene bag with crooked or noncontinous seam, incomplete closure of container flaps, loose strapping, improper taping, inadequate stapling.

Bulged or distorted container,

Content

Number per container is more or less than required.

4.3.2.5 Examination for count of lenses (when procured separately) in intermediate containers.— The lenses packaged for shipment shall be examined to determine conformance with package markings and specified quantity. The sample unit for this examination shall be one box (interior package). The lot size shall be the number of intermediate containers in the and item inspection lot. Any box containing less than the specified or marked quantity of lenses shall be classified as a defect.

4.3.2.6 Examination for palletization.— An examination shall be made to determine that the palletization complies with the section 5 requirements of this specification. Defects shall be scored in accordance with list below. The sample unit shall be one palletized unit load fully prepared for delivery. The lot size shall be the number of palletized unit loads in the end item inspection lot.

Examine	Defect
Finished dimensions	Length, width, or height exceeds specified max mum requirement.
Palletization	Not as specified.  Pallet pattern not as specified.  Interlocking of loads not as specified.  Load not bonded with required straps as specified.
Weight	Exceeds maximum load limits.
Marking	Omitted; incorrect; illegible; of improper size, location, sequence or method of application.

4.3.2.7 <u>Inspection level and AQL.</u>— The inspection levels and AQLs expressed in defects per hundred units shall be as follows:

Paragraph 4.3.2.1	Inspection level	AQL Major	Total
<ul><li>(a) Goggles, complete</li><li>with spare lenses</li><li>(b) Lenses, when procured separately</li></ul>	II	2.5	10.0
4.3.2.2 4.3.2.3 4.3.2.4 4.3.2.5 4.3.2.6	S-3 S-3 S-2 S-2 S-1	one class one class one class one class one class	4.0 4.0 2.5 4.0 6.5

## 4.4 Test methods .-

4.4.1 Aging. - The finished lenses shall be placed in a circulating air oven at a temperature of 150° ± 2° F for 24 hours. The lenses shall be

conditioned for 1 hour at room temperature and then subjected to a reduced temperature of minus  $10^{\circ} \pm 2^{\circ}$  F for 12 hours. The lenses shall then be examined for presence of discoloration, bubbles or surface deterioration. If more convenient, the exposure at minus  $10^{\circ} \pm 2^{\circ}$  F may be extended to as long as 24 hours. However, in case of dispute, the test shall be repeated with the minus  $10^{\circ}$  F  $\pm$  2° F exposure of 12 hours.

- 4.4.2 <u>Color (class 2 only).</u>— The lens shall be inspected for color by use of a spectrophotometer measuring against standard source "C" with magnesium oxide as 100 percent reference.
  - 5. PREPARATION FOR DELIVERY
  - 5.1 Packaging. Packaging shall be level A or C as specified (see 6.2).
  - 5.1.1 <u>Level A.-</u>
  - 5.1.1.1 Unit packaging. -
- 5.1.1.1.1 Goggles. Each pair of goggles (fitted with a class 1 lens as specified in 3.3.6) shall be unit packaged in a close-fitting flat or square style clear polyethylene film bag of 0.0015 inch thickness (+ 20 percent tolerance). The polyethylene bag shall be formed with heat sealed seams that are straight, continuous, and parallel to each other and the formed edges of the bag. The opening of the plastic bag shall be heat sealed or secured with a mechanical tie (paper or plastic covered soft steel wire, aluminum band, etc.). Prior to or during the closure operation, excess air within the bag shall be expelled.
- 5.1.1.1.2 Lens, spare. Each spare lens shall be individually inserted in an end-opening envelope made of 16 pound minimum basis weight (17 by 22 inches 500 sheets) white bond paper. The end flap of the envelope shall be sealed to provide a secure closure.

## 5.1.1.2 Intermediate packaging.-

5.1.1.2.1 Goggles, with spare lens.— Each pair of goggles with class 1 lens and, unless otherwise specified (see 6.2), one spare class 2 lens unit packaged as specified in 5.1.1.1, shall be packaged together in a carrying container (see 6.2.1) conforming to style D of PPP-B-665. The material used in fabricating the carrying container shall be fiberboard conforming to class weather-resistant, grade W6s of PPP-F-320. Both surfaces of the fiberboard shall be coated with a plastic finish which shall be water and grease resistant. Thumb notch requirements

may be waived. Inside dimensions of each box shall approximate 8 inches in length, 4-1/4 inches in width, and 2-5/8 inches in depth. Approximate dimensions are furnished as a guide only. The exterior surface of the box shall be Olive Drab 7 in color. Box closure shall be secured with 2 inch minimum width gummed paper tape conforming to type III, grade B of PPP-T-45.

- 5.1.1.2.2 Lenses, when procured separately (see 6.2).— One hundred lenses of one class only, unit packaged as specified in 5.1.1.1, shall be packaged on edge in a setup paperboard box conforming to type I, variety 1, class A, style 4 of PPP-B-676. Inside dimensions of each paperboard box shall approximate 8 inches in length, 7-1/2 inches in width, and 4 inches in depth. Approximate dimensions are furnished as a guide only. Box closure shall be secured with tape as specified in 5.1.1.2.1.
- 5.1.2 <u>Level C.</u>— Each pair of goggles, or lenses when procured separately (see 6.2), shall be packaged to afford adequate protection against physical damage during shipment from the supply source to the first receiving activity. The supplier may use his standard practice when it meets this requirement.
  - 5.2 Packing. Packing shall be level A, B or C as specified (see 6.2).
  - 5.2.1 Level A.-
- 5.2.1.1 Goggles. Forty-eight pairs of goggles, packaged as specified in 5.1, shall be packed in a fiberboard shipping container as hereinafter specified.
- 5.2.1.2 <u>Lenses</u>, when procured separately (see 6.2).— Twelve hundred lenses of one class only, packaged as specified in 5.1, shall be packed in a fiberboard shipping container as hereinafter specified.
- \* 5.2.1.3 Shipping container. Each shipping container shall conform to style RSC, grade V2s of PPP-B-636. Level A package arrangement and approximate inside dimensions of each shipping container shall be as specified in table III. Each shipping container shall be closed, waterproofed, and reinforced in accordance with the appendix of PPP-B-636.

# TABLE III. - Packing arrangement of level A packages and approximate inside dimensions of shipping containers

Item	Packing arrangement	Inside dimensions 1/ (inches)
Goggles	3L x 4W x 4D	24-3/4L x 17-1/2W x 11D
Lenses (when procured separately)	2L x 2W x 3D	16-3/4L x 15-1/2W x 12-1/2D

<sup>1/</sup> Inside dimensions are approximate and are furnished as a guide only.

## 5.2.2 <u>Level B.-</u>

- 5.2.2.1 <u>Goggles</u>.- Forty-eight pairs of goggles, packaged as specified in 5.1, shall be packed in a fiberboard shipping container as hereinafter specified.
- 5.2.2.2 Lenses, when procured separately (see 6.2).— Twelve hundred lenses of one class only, packaged as specified in 5.1, shall be packed in a fiberboard shipping container as herinafter specified.
- \* 5.2.2.3 Shipping container.— Each shipping container shall conform to style RSC, type CF (variety SW) or SF, class domestic, grade 275 of PPP-B-636. Level A package arrangement and approximate inside dimensions of each shipping container shall be as specified in table III. Each shipping container shall be closed in accordance with method II as specified in the appendix of PPP-B-636.
- \* 5.2.2.3.1 When specified (see 6.2), the shipping container shall be a grade V3c, V3s or V4s fiberboard box fabricated in accordance with PPP-B-636 and closed in accordance with the appendix of the container specification.
- \* 5.2.3 <u>Level C.-</u> Goggles and lenses, when procured separately (see 6.2), packaged as specified in 5.1, shall be packed in a manner to insure carrier acceptance and safe delivery at destination at the lowest transportation rate for such supplies. Containers shall be in accordance with Uniform Freight Classification Rules or National Motor Freight Classification Rules; as applicable.

- \* 5.3 Palletization.— Unless otherwise specified (see 6.2), goggles packed as specified in 5.2, shall be palletized in accordance with load type I of MIL-STD-147. Each prepared load shall be bonded with primary and secondary straps in accordance with bonding means K and L. Pallet patterns shall be in accordance with the appendix of MIL-STD-147. Interlocking of loads shall be effected by reversing the pattern of each course. If the container is of a size which does not conform to any of the pallet patterns specified in MIL-STD-147, the pallet pattern used shall first be approved by the contracting officer.
- 5.4 Marking.- In addition to any special marking required by the contract or order, setup boxes containing spare lenses (when procured separately), shipping containers and palletized unit loads (when applicable) shall be marked in accordance with MIL-STD-129.
- \* 5.4.1 Special marking.-
  - 5.4.1.1 Intermediate package (carrying container for goggles).— The intermediate package specified in 5.1.1.2.1 shall have the following information plainly printed with water insoluble black ink:

On top panel of lid:

STOCK NUMBER
ITEM DESCRIPTION
QUANTITY
SPARE LENSES: 1 each clear
1 each neutral gray
NAME AND ADDRESS OF MANUFACTURER

THESE GOGGLES WILL PROTECT YOU AGAINST DUST, SUN AND WIND.
Use the neutral gray lens in bright light, the clear in dull light.
DO NOT USE FOR SUN SCANNING. DO NOT SCRATCH THE LENSES. They are of plastic which is safer and lighter but will scratch if abused. When not in use, protect them against dirt or hard objects. Clean by washing off with water when possible or steaming with your breath and then wipe dry with soft cloth or toilet paper. Gasoline should not be used for cleaning.

COLD WEATHER PRECAUTIONS: If cold stiffens goggles, do not bend or force them. If they fog, hold away from face to let air in behind the lens until it clears.

WHEN NOT BEING WORN: Goggles should be kept in dry place away from sunlight.

On the front panel of lid:

TO PROVIDE MAXIMUM VISION WEAR GOGGLES AS LOW ON NOSE AS POSSIBLE.

\* 5.4.1.2 Envelope (unit package for spare lens).— The spare lens envelope specified in 5.1.1.1.2, shall be marked as illustrated in figure 3, except the heading shall designate either the class 1 or class 2 color and use, as applicable.

## 6. NOTES

- 6.1 Intended use. The goggles are intended for use by Military personnel as follows:
  - Class 1 (clear lens) For protection against wind and dust.
    Class 2 (neutral gray lens) For protection against excessive light and glare.
- 6.2 Ordering data. Procurement documents should specify the following:
  - (a) Title, number and date of this specification.
  - (b) First article. Whether preproduction sample is required (see 3.1).
  - (c) When a spare class 2 lens is not required to be packaged in a carrying container with each pair of goggles (see 5.1.1.2.1).
  - (d) When spare lenses are to be procured separately (see 5.1.1.2.2, 5.1.2, 5.2.1.2, 5.2.2.2, and 5.2.3).
  - (e) Selection of applicable levels of packaging and packing (see 5.1 and 5.2).
  - (f) When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.3.1).
  - (g) When palletization is not required (see 5.3).
- 6.2.1 The carrying container specified in 5.1.1.2.1 is of special design in order to serve a dual function. Initially, it provides physical protection to each pair of goggles as an intermediate package and later it furnishes safe storage for the goggles when not in use.
- 6.3 The colorimetric characteristics specified in 3.3.5.2 encompass essentially the range of Munsell values falling between 5B4/1, 5G4/1, and 5Y4/1, as described in the "Munsell Book of Color" published by the Munsell Color Co., 10 East Franklin St., Baltimore, Md.
- 6.4 Marginal notations.— The margins of this specification are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and suppliers are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

M1L-G-635C

# Custodians:

Army - GL Navy - SA Air Force - 82

# Review activities:

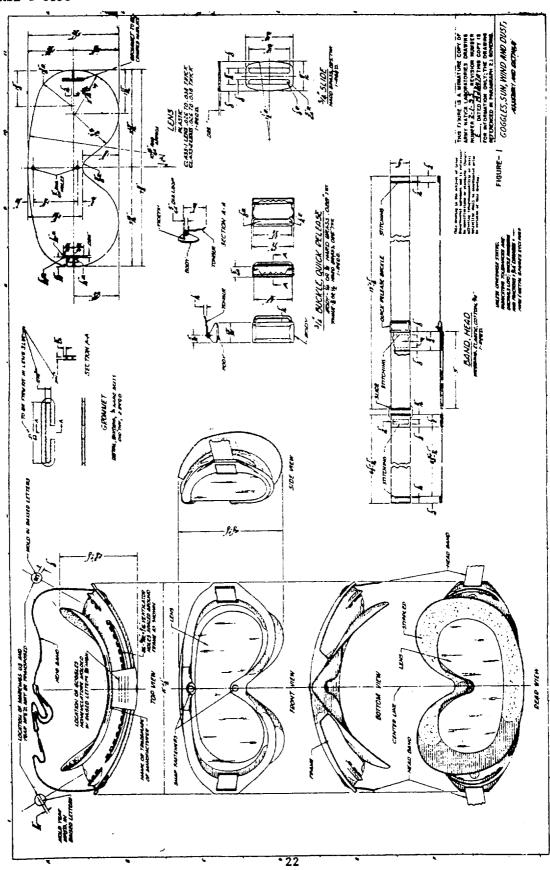
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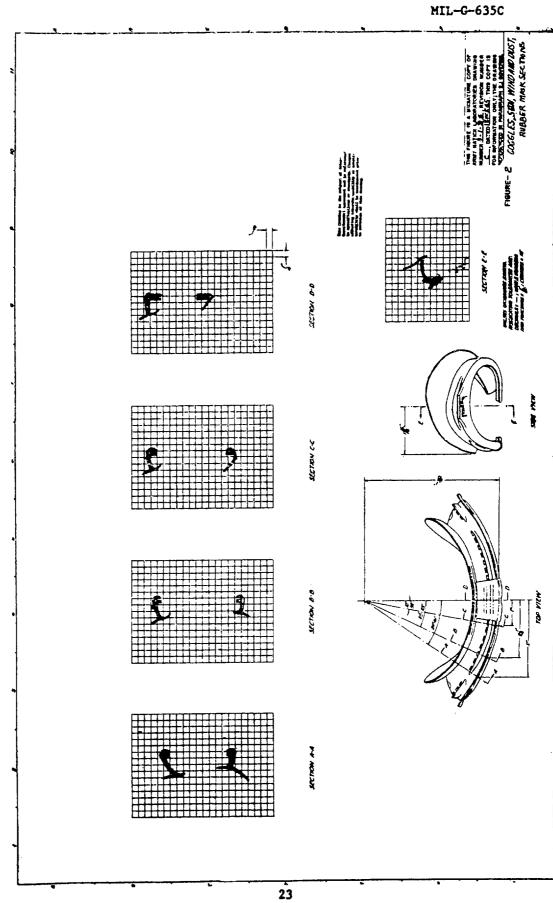
# User activities:

Army - MU Navy - YD, MC Preparing activity:

Army - GL

Project No. 8465-0287





# STOCK NUMBER LENS, PLASTIC, GOGGLE. NEUTRAL GREY

# One Class #2 I ens — For Protection against Excessive Light and Glare.

# MANUFACTURER'S NAME & ADDRESS

#### CARE OF LENSES

The plastic lenses for the goggles are flexible, shatter-resistant and lighter than gine. However, they are scratched much more easily than gine lenses. When not in use protect them against dirt or hard objects. To make them last longer clean dust and finger prints from them by washing with water or by breathing on the lens, then wipe dry with a soft clean cloth or tellet paper, making absolutely certain that the cloth or paper is free of grit, sand, or dirt. Gaseline or het water should mee be used for cleaning. Replace a permanently marred lens with one of your sparss. When your supply runs low request a new set of spars lenses from your supply officer. Keep the spars lenses fixt in the carrying container to guard against warpage.



#### NOW TO USE LENSES AS COVER-LENSES

Tinted lenses may be used as cover-lenses when rapid and frequent interchange is desired. Loosen the head band loops at both sides of the paggies. Without removing or disturbing the clear plastic lens in the frame, place the tinted less over the outside of your paggies frame. Thread the head band at each end through the T-Siots of the less. Tighten the head band to secure a firm fit of the cover-lens against front surfaces of the paggies frame.

## HOW TO INTERCHANGE THE LENSES IN YOUR GOGGLES FRAME



Unsnep the Two Fasteners



Head Band Fits Into T-Slots of Lens



Remove the Lens From the Goggles



Fasten the top snap and insert the lens into the channel of the goggles frame before snapping the bottom snap. Make sure that the T-Slots of the lens line up with the head band slots of the frame.

FIGURE 8.

SPECIFICATION ANALYSIS SH	EET	Form Approved Budget Bureau No. 22-R255
INSTRUCTIONS: This wheet is to be filled out by per use of the specification in procurement of products for is provided for obtaining information on the use of thican be procured with a minimum smount of delay and a will be appreciated. Fold on lines on reverse side, and and nuggestions aubmitted on this form do not constitute ferenced document(s) or serve to amend contractual referenced.	ultimate use by the Depar n specification which will t the least cost. Commen ple in corner, and send to ute or imply authorization	tment of Defense. This sheet insure that suitable products ts and the return of this form preparing activity. Comments
BPECIFICATION		
MIL-G-635C GOGGLES, SUN, WIND AND DU	JST	
ORGANIZATION		
CITY AND STATE	CONTRACT NUMBER	
MATERIAL PROCURED UNDER A	loru	
DIRECT GOVERNMENT CONTRACT SUB-C	ONTRACT	
A. GIVE PARAGRAPH NUMBER AND WORDING.		
B. RECOMMENDATIONS FOR CORRECTING THE DEFIC	TENCIES	
2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CO	NSIDERED TOO RIGID	
3. IS THE SPECIFIC ATION RESTRICTIVE?		
YES NO (II "yee", in what way?)		
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REMARKS (Attach any pertinent data which may be of use in attach to form and place both in an envelope addressed to pe	improving this specification	. If there are additional papers,
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REPLACES EDITION OF 1 OCT 64 WHICH MAY BE USED.