

PURCHASE DESCRIPTION

INSIGNIA, NAME BADGE, FLAME RESISTANT VARIANT COVERALL

1. SCOPE

1.1 Scope. This purchase description sheet is approved for use by all departments and agencies of the Department of Defense.

1.2 Classification. The insignia will be available in one type and one size

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this purchase description. This section does not include documents cited in other sections of this purchase description or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements cited in sections 3 and 4 of this purchase description, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this purchase document to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the solicitation or contract.

COMMERICAL ITEM DESCRIPTIONS

A-A-50199	Thread, Polyester Core, Cotton or Polyester-Covered
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DEPARTMENT OF DEFENSE SPECIFICATIONS

MIL-C-24946	Cloth, Twill, Cotton (Flame Retardant Treated)
MIL-C-44296	Cloth, Fusibles

(Copies of these documents are available online at <http://assist.daps.dla.mil/quicksearch/> or www.dodssp.daps.mil or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS

Evaluation Procedures

AATCC Evaluation Procedure 9 Visual Assessment of Color Difference of Textiles

Test Methods

AATCC Test Method 16	Colorfastness to Light
AATCC Test Method 20A	Fiber Analysis: Quantitative
AATCC Test Method 61	Colorfastness to Laundering, Home and Commercial: Accelerated
AATCC Test Method 132	Colorfastness to Drycleaning

(Copies of these documents are available online at <http://www.aatcc.org> or AATCC, P.O. Box 12215, Research Triangle Park, NC 27709.)

AMERICAN SOCIETY FOR QUALITY (ASQ)

ANSI/ASQ Z1.4 - Sampling Procedures and Tables for Inspection of Attributes

(Copies of this document are available online at <http://www.asq.org/> or from American Society for Quality, P.O. Box 3005, Milwaukee, WI 53201-3005 or 600 North Plankinton Avenue, Milwaukee, WI 53203.)

ASTM INTERNATIONAL

ASTM D1907	Standard Test Method for Linear Density of Yarn (Yarn Number) by the Skein Method
ASTM D6193	Standard Practice for Stitches and Seams

(Copies of these documents are available on line at <http://www.astm.org> or from ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.)

AMERICAN EFFIRD

Department of Defense Standard Shades for Heraldic Yarns

(Copies of this standard is available online at www.amefird.com or American & Efird, A&E, 24 American Street, Mount Holly, NC 28120. see 6.2)

2.4 Order of precedence. In the event of a conflict between the text of this purchase description and the references cited herein, the text of this purchase description shall take precedence. Nothing in this purchase description, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS.

3.1 Figures. Figure 1 is for informational purposes only. When inconsistencies exist between the written purchase description and Figure 1, the written purchase description shall govern.

3.2 Materials and components. The materials and components shall conform to applicable specifications, standards, and figures as specified herein.

3.2.1 Basic material. The basic material shall be in accordance with MIL-C-24946 Cloth, Twill, Cotton (Flame Retardant Treated) in Blue 3384.

3.2.2 Fusible Stabilizer. The fusible stabilizer for the badge shall conform to Type V, Class 1, Style A of MIL-C-44296.

3.2.3 Hook Fastener Backing. The hook fastener backing shall be black and conform to Class 1 or Class 4 of A-A-55126.

3.2.4 Yarn, embroidery. The embroidery yarn used for the overedge border shall be a 2-ply polyester (with abundant luster), bright, continuous filament embroidery yarn. The yarn denier shall range from 90 to 120. All yarns shall show good colorfastness to light, laundering, wet-dry cleaning of not less than grade 4 when tested as specified in 4.3.1.1.

3.2.4.1 Embroidery Yarn, color. The color for the overedge embroidery yarn shall be Graphite Blue HCF, Cable No. 67181 in accordance with the Department of Defense Standard Shades for Heraldic Yarns, unless otherwise specified by the procuring command.

3.2.4.1.1 Yarn, color matching. The color and appearance of the embroidery yarn on the basic material shall match the standard sample when viewed in accordance with the method specified in 4.3.1.2.

3.2.5 Sewing thread. The thread used to stitch the hook backing to the badge shall conform to conform to Type I or Type II of A-A-50199. Thread for needle and bobbin (looper) shall be Tex size 36 to 50. As an alternate, Tex size 31 to 35 may be used as the bobbin (looper) thread. All visible thread shall be the same shade and approximate the color of the basic material.

3.3 Construction. The basic material shall be cut in accordance with the dimensions specified in 3.3.2 and the edges finished with a Graphite Blue HCF, Cable No. 67181 overedge border. The badge shall be finished with a hook backing conforming to the requirements of 3.2.3 and shall be attached by edge stitching.

3.3.1 Stitches, seams and stitching. All stitches, seams and stitching for construction of the construction of the badge shall conform to ASTM-D-6193. The seaming and stitching shall be in accordance with Table I.

TABLE I. Seam types.

Stitching Details	Seam Type	Stitches Per Inch	Gauge or Bite	Stitch Type
Badge overedge border	EFd	26-34	1/8 bite	505
Hook Backing Edge Stitch	SSe-2	10-14	1/8 from edge	301

3.3.2 Badge Dimensions. The finished badge shall measure as follows:

Height: 2-1/16 ± 1/16 inches when measured left to right edge

Width: 4-1/16 inches ± 1/16 inches when measured bottom to top edge

3.4 Workmanship. Each finished badge shall conform to the design and construction requirements specified in this purchase description. Each item shall be uniform in appearance, quality and free from irregularities or defects that could affect form, fit or function including performance or durability when tested or visually and/or dimensionally inspected as specified in Section 4.

4. VERIFICATION

4.1 Classification of Inspections. The inspection requirements specified herein are classified as in 4.2.

4.2 Conformance inspection. Unless otherwise specified, conformance testing shall be performed on production lot articles for the requirements of Table II. Sampling for inspection shall be performed in accordance with ANSI/ASQC Z1.4.

TABLE VI. Conformance inspection examinations and tests.

Inspection	Inspection Method
Visual Examination	4.3.3 and Table III
Components and Materials	4.3.1 and Table II
Dimensional Examination	3.3.2, 3.3.1

4.2.1 Certificate of compliance. Where certificates of compliance are submitted in accordance with 4.3.1, they shall contain verifiable actual test and inspection data. The Government reserves the right to inspect and test the component to verify the validity of the certification.

4.3 Inspection methods.

4.3.1 In accordance with 4.1, components and materials shall be inspected in accordance with the requirements of Table II.

4.3.1.1 Component and material inspection. The components specified in Table II shall be tested for the characteristics listed in accordance with the test method cited.

TABLE II. Embroidery yarn verification.

Characteristic	Requirement Paragraph	Verification
Fiber Identification	3.2.4	AATCC 20A
Ply	3.2.4	Visual
Denier	3.2.4	ASTM-D-1907
Colorfastness to Light (40 AATCC Fading Units or 170 kilojoules)	3.2.4	AATCC-16 Opt 1 or 3 <u>1/</u>
Colorfastness to Laundering (after 3 cycles)	3.2.4	AATCC-61 test 2A <u>1/</u>
Colorfastness to Wet-Dry Cleaning	3.2.4	AATCC-132 <u>1/</u>
Visual color matching	3.2.4.1	4.3.1.2

1/ AATCC Evaluation Procedure 9

4.3.1.2 Visual shade matching. The shade and appearance of the overedge yarns shall be a good match their respective cable number colors specified in 3.2.4.1. Visual matching shall be viewed using the AATCC Evaluation Procedure 9, Option A, with sources simulating artificial daylight D75 illuminant with a color temperature of 7500° (± 200) K illumination of 100° (± 20) foot candles, and shall be a good match to the cable number color under incandescent lamplight at 2856° (± 200)K.

4.3.2 End item visual examination. The finished badges selected for end item visual inspection shall be visually examined for compliance to Section 3. The finished insignia shall be examined for defects in shade, material, construction and workmanship. Defects shall be classified as specified under Table III.

4.3.3. End item dimensional examination. The finished badges selected for examination shall conform to the dimensions specified in Section 3. Any dimension not within the specified tolerance shall be classified as a defect as specified under Table III. The lot size shall be expressed in units of badges. The sample unit shall be one badge.

TABLE III. Classification of end item visual and dimensional defects.

Examine	Defect	Classification	
		Major	Minor
Basic material <u>1/</u>	Any hole, cut or tear	101	
	Any broken or missing yarns or multiple floats	102	
	Any needle chew , mend, burn, needle chew, misweave, area of poor dye penetration, dye streak, broken or missing yarn, visible mend, thin place, or shade bar	103	
	Any run, thin place , dye streak, misweave	104	
Cleanness	Any spot, streak, stain or foreign matter on face	105	
	Thread ends not trimmed		201
Component and assembly	Any defective component, any component omitted, any required operation omitted or improperly performed	106	
Seam, stitching and stitch tension (for construction)	Not specified seam or stitch type	107	
	Missing, broken, or skipped stitches, loose tension, tight tension, stitches per inch not as specified		202
Color, embroidery yarn	Not as specified	108	
Color, sewing thread	Poor match for basic material		203
Embroidery	Overedge stitch distorted or misshapen	109	
	Bunched, kinked or tangled yarns on face	110	
	Non-uniform embroidery stitch density	111	
	Shifted or scuffed surface yarns	112	
	Distortion of surface yarns (face), loose or tight tension	113	
	Bobbin thread visible on face, poor registration	114	
	Unrelated colors or yarn visible on face, poor registration	115	
	Stitching incomplete	116	
Finishing	Hook backing material not as specified, backing causes puckering	117	
	Finished edges irregular or wavy	118	
Dimensions for construction only	Not as specified.	119	

1/ As defined in FED-STD-4B – Glossary of fabric imperfections

Responsibility for Inspecting and Testing. The contractor is responsible for the performance of all inspection requirements specified herein and may use their own or any other facility suitable for the performance of the inspection requirements specified herein.

5. PACKAGING

5.1 Packaging. Packaging shall be in accordance with good commercial practice.

6. NOTES

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

6.1 Intended use. The name badge is intended to be worn as part of the Navy Flame Resistant Variant Coverall uniform.

6.2 Certification Information. At the time of request for certification, manufacturers/suppliers are required to submit two samples of the following:

- (1) Current certificate number and date (if applicable)
- (2) Name of manufacturer or any sub-contractor
- (3) Location of plant and company title
- (4) Identification and source of basic materials and threads
- (5) Verification of country of origin for fabrics, components and manufacturing
- (6) Style number (as applicable)

6.3 Questions or concerns regarding the above should be directed to.

Navy Clothing and Textile Research Facility

Attn: Building 86

Kansas Street

Natick, MA 01760

6.4 Suggested Material Sources.

6.4.1 Basic Material. The basic material known to meet the requirements of paragraph 3.2.1 are available from:

Mt Vernon Mills

P.O. Box 7

91 Fourth Street

Trion, GA 30753

(706)734-4945

Milliken

PO Box 1926

M-126

920 Milliken Road

Spartanburg, SC 29304-1926
T 864-503-2336

WESTEX
2845 West 48th Place
Chicago, IL 60632
Phone: 773-523-7000

MF&H
25 Billy Blvd
Butler, GA 31006
478-862-5423 ext 15

6.4.2 Embroidery yarn. The embroidery yarn known to meet the requirements of paragraph 3.2.4 are available from:

American & Efird, A&E
24 American Street
Mount Holly
NC 28120
(800)453-5128

Custodian:
Navy-NU
DLA

Preparing Activity:
Navy-NU

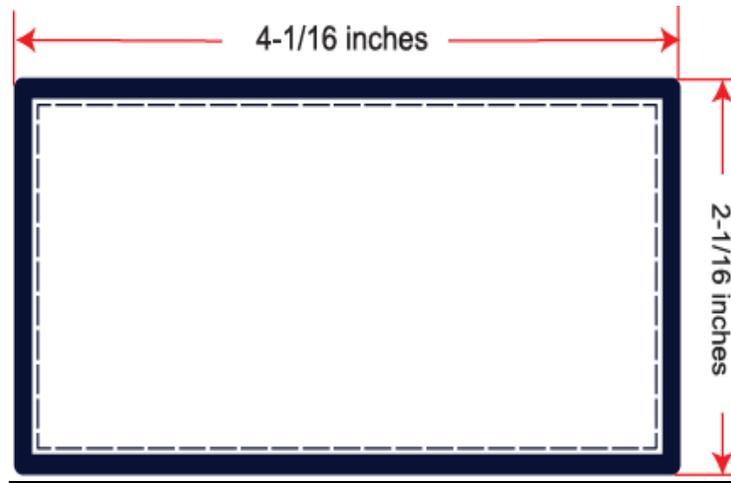


Figure 1. Badge Face