Technical Data

PGC02155 – Desert Sun Hat, Type II

PGC01891 – Woodland Sun Hat, Type III

PGC02981 – ACU (UCP) Sun Hat, Type IV

PGC03846 - RABU Sun Hat, Type V

PGC03659 - ACU (OEF-CP) Sun Hat, Type VI

PGC04036 – ACU (OCP), Sun Hat, Type VII

Pattern information:

Hat, Sun, Hot Weather

MIL-H-44105

Pattern Date: 2 February 2015

Updated: March 23, 2015

***TYPE II:***

Hat, Sun, Type II, Desert Camouflage Pattern, shall be made in accordance with MIL-DTL-44105C dated 7 February 2008

Standard sample for Cloth, Nylon/Cotton Ripstop, MIL-DTL-44436A, Class 3, Desert Camouflage Printed, is available on Roll #3630 for shade, appearance and colorfastness.

***TYPE III:***

Hat, Sun, Type III, Woodland Camouflage Pattern, shall be made in accordance with MIL-DTL-44105C dated 7 February 2008

STANDARD SAMPLE OF CLOTH, CAMOUFLAGE PATTERN WIND RESISTANT POPLIN, NYLON/COTTON SHALL BE IN ACCORDANCE WITH MIL-DTL-44436A TYPE IV, AND IS AVALIABLE AND IS APPLICABLE FOR SHADE, FINISH
APPEARANCE AND COLORFASTNESS ON ROLL NO. 3551\*.

\*Roll #3530 is an acceptable substitute for #3551 if #3531 is not available.

***TYPE IV:***

Hat, Sun, Type IV, Universal Camouflage Pattern, shall be made in accordance with MIL-DTL-44105C dated 7 February 2008

Standard sample for Cloth, Universal Camouflage Pattern, wind resistant poplin, nylon/cotton blend, conforming to class 8 (wrinkle free) of MIL-DTL-44436 is available on roll no. 3877 and is applicable for Shade, Appearance, Colorfastness and IR Spectral Reflectance. This standard shall apply before and after permethrin treatment, when applicable.

Unless otherwise indicated, shade for visible components on UCP garments shall conform to Foliage Green 504. The standard for this shade is color chip #24165 from FED-STD-595C.

***TYPE V:***

Hat, Sun, Type V, Digital Tiger Stripe Print, shall be made in accordance with MIL-DTL-44105C dated 7 February 2008

Standard sample for Cloth, Air Force Digital Tiger Stripe Print, Camouflage Pattern conforming to Type IV, Class 1, Wind Resistant Poplin, Ripstop Weave, Light Weight Cloth, Nylon/Combed Cotton of YACL-05-1A, is available on Roll no. 12-01 and is applicable for shade only.

***TYPE VI:***

Hat, Sun, Type VI, Operation Enduring Freedom Camouflage Pattern (OEF-CP), shall be made in accordance with MIL-DTL-44105C dated 7 February 2008 and the interim changes.

Standard sample for Cloth, Operational Enduring Freedom Camouflage Pattern, wind resistant poplin, nylon/cotton blend, conforming to class 11 (wrinkle free) of MIL-DTL-44436 is available on roll no. 3886 and is applicable for Shade, Appearance, Colorfastness and IR Spectral Reflectance. This standard shall apply before and after permethrin treatment, when applicable.

In order to properly assess shade on OEF-CP material , the government will need 24” lengthwise x 30” widthwise shade swatches. This may deviate from current practices for other camouflage printed materials. Samples smaller than the required measurement of 24” x 30” will not be accepted for evaluation.

For fabrics printed with OEF-CP, all color evaluations to include visual, spectral reflectance and colorfastness are to be performed on the solid color area and not the tonal area.

Unless otherwise indicated, shade for visible components on OEF-CP garments shall conform to Tan 499. The standard for this shade is color chip #20180 from FED-STD-595C.

***TYPE VI:***

Hat, Sun, Type VI, Operational Camouflage Pattern (OCP), shall be made in accordance with MIL-DTL-44105C dated 7 February 2008 and the interim changes

Standard sample for Cloth, Operational Camouflage Pattern, wind resistant poplin, nylon/cotton blend, conforming to class 11 (wrinkle free) of MIL-DTL-44436 is available on roll no. 3886 and is applicable for Shade, Appearance, Colorfastness and IR Spectral Reflectance. This standard shall apply before and after permethrin treatment, when applicable.

In order to properly assess shade on OCP material , the government will need 24” lengthwise x 30” widthwise shade swatches. This may deviate from current practices for other camouflage printed materials. Samples smaller than the required measurement of 24” x 30” will not be accepted for evaluation.

For fabrics printed with OCP, all color evaluations to include visual, spectral reflectance and colorfastness are to be performed on the solid color area and not the tonal area.

Unless otherwise indicated, shade for visible components on OCP garments shall conform to Tan 499. The standard for this shade is color chip #20180 from FED-STD-595C.

Color Chips are available at:

FED-SPECS

2620 W. Ball Rd., Suite 126

Anaheim, CA 92804

Phone: 714-828-1400 ~ 800-631-6201

Web: www.FED-STD-595.com

Inspection shall be as follows:

ANSI/ASQ Z1.4 Acceptable Quality Limits

Visual

 Major - Level II, 2.5

 Minor - Level II, 10.0

Dimensional - S-2, 4.00

Palletization - S-I, 6.5

Prep - S-2, 2.5

Interim changes to MIL-DTL-44105C:

Page 1

1.2.1, add the following Type:

"Type VI - Operation Enduring Freedom Camouflage Pattern (OEF-CP), Water Repellent Treated"

Paragraph 1.2.1 Types. Delete “Type VI – Operation Enduring Freedom Camouflage (OCP), Water Repellent Treated” and replace with “Type VI – Operation Enduring Freedom Camouflage Pattern (OEF-CP), Water Repellent Treated (Quarpel Type)”. Add “Type VII – Operational Camouflage Pattern (OCP), Water Repellent Treated (Quarpel Type)”

Delete the following:

“Comments, suggestions, or questions on this document should be addressed to: Defense Supply Center Philadelphia, clothing and Textiles Directorate, Attn: DSCP Standardization Team, 700 Robbins Avenue, Philadelphia, PA 19111-5096. Since contact information can change, you may want to verify the currency of the address information using Acquisition Streamlining and Standardization Information System (ASSIST) online database <https://assist.daps.dla.mil/>”

|  |
| --- |
| And replace with the updated information: “Comments, suggestions, or questions on this document should be addressed: Attn: DLA Troop Support, 700 Robbins Avenue, Philadelphia, PA 19111-5096. Since contact information can change, you may want to verify the currency of the address information using Acquisition Streamlining and Standardization Information System (ASSIST) online database https://assist.dla.mil/”  |

PAGE 2

Paragraph 2.2.1 Specification, standards, and handbooks, delete the hyperlinks “https://assist.daps.dla.mil/quicksearch/ or http://assist.daps.dla.mil/” and replace with

“https://assist. dla.mil”

Paragraph 2.2.2 Other Government documents, drawings, and publications:

Paragraph 2, delete “YACL 05-01, Cloth, Twill,” and replace with “YACL 05-01, Cloth, Ripstop”.

PAGE 3

Paragraph 2.3 Non-Government publications.

AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS (AATCC)

Delete “AATCC Test Method 16 – Colorfastness to Light”

Add replace with the following:

“AATCC Test Method 16.2 – Colorfastness to Light: Carbon-Arc

AATCC Test Method 16.3 – Colorfastness to Light: Xenon-Arc”

PAGE 4

3.3.1.2 Type III. Line 1, after “cotton/nylon” add “water repellent treated”

3.3.1.3 Type IV. Line 1, after “cotton/nylon” add “water repellent treated”

3.3.1.4 Type V. Line 1, after “hat shall be” delete “cotton twill nylon,” and replace with “a blended cotton/ nylon ripstop” Line 2, delete “Type III, Class 1 of Purchase Description YACL 05-01” replace with “Type V, Class 1 of Purchase Description YACL 05-01A”.

Delete existing paragraph "3.3.1.5 Side lining", and substitute the following three paragraphs:

"3.3.1.5 Type VI. The basic material for the Type VI sun hat shall be a blended cotton/nylon water repellent treated ripstop poplin cloth conforming to Class 10 of MIL-DTL-44436.

Add paragraph: "3.3.1.5.1 Side lining alternate cloth (Type IV hat). For the Type IV hat, an alternate side lining cloth shall be a blended cotton/nylon ripstop poplin cloth conforming to Class 8 (wrinkle free) of MIL-DTL-44436, Universal Camouflage Printed or printed Universal Camouflage Printed seconds. Printed seconds cloth shall be a cloth rejected only for defects pertaining to color, infrared reflectance, or camouflage print pattern."

Add paragraph “3.3.1.6 Type VII. The basic material for the Type VII sun hat shall be a blended cotton/nylon water repellent treated ripstop poplin cloth conforming to Class 13 of MIL-DTL-44436.”

Delete the previous number for “3.3.1.6 Side lining.” and renumber “3.3.1.7 Side lining.”

Paragraph 3.3.1.7 Side lining. Line 1, delete “For Type II, IV, V, and VI” and replace with “For Types II, IV, V, VI, and VII”.

Delete paragraph “3.3.1.6.1 Side lining alternate cloth (Type IV hat).” and replace with paragraph:

“3.3.1.7.1 Side lining alternate cloth (Type IV, VI, and VII hats). For the Type IV, VI, and VII hats, an alternate side lining cloth shall be a blended cotton/nylon wrinkle free ripstop poplin cloth conforming to Class 8 for Type IV, Class 11 for Type VI and Class 14 for Type VII of MIL-DTL-44436. The cloth shall be in the camouflage specified or printed seconds of the camouflage specified. Printed seconds cloth shall be a cloth rejected only for defects pertaining to color, infrared reflectance, or camouflage print pattern.”

3.3.4 Webbing, nylon. Line 2, delete “Types III, IV, V, and VI” and substitute “Types III, IV, V, VI, and VII”. On Line 6, after “Tan 499” delete “for Type VI” add “for Types VI and VII.”

Add paragraph: "3.3.3.1 Brim interlining, fusible (when applicable). The optional fusible brim interlining substrate shall be non-woven, continuous filament of polyester cloth conforming to Type II of A-A-50128, except the breaking strength of the non-woven in the machine direction shall be 45 pounds minimum and the breaking strength in the cross machine direction shall be 25 pounds. The adhesive shall conform to MIL-C-44296, Class 1 or Class 3. The substrate shall be coated on the face and back in accordance to MIL-C-44296, paragraph 3.2.3, Hot melt dot. The bond strength shall be in accordance with MIL-C-44296, paragraph 3.4.1, Bonding strength except line 4 after "#three launderings" delete "(classes 2, 3, and 4)" and substitute "(classes 1, 2, 3, and 4)" and delete "or three dry cleanings (class 1) with steam pressing". MIL-C-44296, Table VIII End item tests, omit "After dry cleaning (3 cycles) (Class 1)" and substitute "After laundering (3 cycles) (Class 1, 2, 3, and 4)."

3.3.4, delete and substitute, "3.3.4 Webbing, nylon. The nylon webbing for the camouflage band for Types III, IV, V and VI sun hats shall be bulked nylon, Type IV, 3/4 inch wide, conforming to A-A-55301. The webbing shall be dyed Camouflage Green 483 for Type III, Foliage Green 504 for Type IV and Foliage Green 504 or Sage Green 1641 for Type V and Tan 499 for Type VI".

3.3.4, line 3, delete "Type II" and substitute "Type III".

PAGE 4 and 5

Delete in its entirety paragraphs “3.3.4.1 Spectral Reflectance” and “3.3.4.1.1 Spectral Reflectance” and replace with “3.3.4.1 Spectral Reflectance (Types IV, V, VI, and VII). The webbing shall meet the spectral reflectance values as specified in TABLE I when tested as specified in A-A-55301.”

Delete in its entirety Tables, “Table I, Spectral Reflectance Value Foliage Green 504” and

“Table 1A Spectral Reflectance Values” and replace with

“TABLE I Spectral Reflectance Values for Webbing (Types IV, V, VI, and VII)

|  |  |  |  |
| --- | --- | --- | --- |
| Wavelength (nanometers) | Camouflage Green 483 | Foliage Green 504 | Tan 499 |
|  | Min | Max | Min | Min | Min | Max |
| 600 | 3 | 10 | 8 | 26 | 8 | 26 |
| 620 | 3 | 10 | 8 | 26 | 8 | 26 |
| 640 | 3 | 10 | 8 | 28 | 8 | 30 |
| 660 | 3 | 11 | 10 | 30 | 8 | 34 |
| 680 | 3 | 13 | 10 | 34 | 12 | 38 |
| 700 | 4 | 28 | 12 | 38 | 12 | 40 |
| 720 | 5 | 40 | 16 | 42 | 16 | 46 |
| 740 | 7 | 52 | 16 | 46 | 22 | 50 |
| 760 | 11 | 60 | 18 | 48 | 30 | 50 |
| 780 | 17 | 64 | 18 | 48 | 34 | 54 |
| 800 | 24 | 67 | 20 | 50 | 36 | 56 |
| 820 | 32 | 70 | 22 | 54 | 38 | 58 |
| 840 | 37 | 71 | 24 | 54 | 38 | 58 |
| 860 | 40 | 73 | 26 | 56 | 40 | 60” |

3.3.5 Laces, nylon. Line 4, after “Green 1641” delete “and for Type VI” and replace

“and for Types VI and VII”.

PAGE 6

3.3.6, Keeper. Line 6, after the following sentence, "A plastic fixlock keeper may be substituted for the leather keeper", add the following: "The plastic fixlock keeper shall be 1/2-inch x 3/8-inch elliptical or 3/8-inch round shape, minimum push-button size to easily operate with gloves."

3.3.6, Last line, after "Type IV" insert "and Tan 499 for Type VI and VII".

3.3.7 Thread. Line 5, after “Sage Green 1641 and for” delete “Type VI sun hat” and replace “Types VI and VII sun hats”. Line 5, delete “Types III, IV, V, and VI” substitute “Types III, IV, V, VI and VII”.

3.3.8, Labels. After the first sentence, "Each sun hat shall have a combination identification-size label and an instruction label or a combination identification size instruction label.", add the following: "The color of the labels shall be white or approximate the ground shade of the basic material."

Replace 3.3.8.1 with the following:

3.3.8.1. Combination identification-size label. The combination identification-size label shall conform to Type VI, Class 4 of MIL-DTL-32075.

3.3.8.2.2 For Type II, IV and VI. Line 1, delete “Types II, IV and VI” in both locations and substitute “Types II, IV, VI and VII” in both locations.

PAGE 7

Delete label in its entirety

“1. Initial loose fit required for continued comfort.

2. Hand or machine wash using permanent press cycle, cold water and mild detergent without chlorine bleach.

3. Do not wring or twist. Rinse in clean, cold water.

4. Dry at low heat (do not exceed 130ºF) or hang dry.

CAUTION

Chlorine bleach or starch will damage the hat

Suspend headnet from top of brim, drape headnet over shoulders.

DO NOT REMOVE THIS LABEL”

And replace with the following:

“1. Initial loose fit required for continued comfort.

2. Hand or machine wash using permanent press cycle, cold water and mild detergent.

3. DO NOT WRING OR TWIST. Rinse in clean, cold water.

4. Tumble dry at low heat (do not exceed 130ºF) or hang dry.

CAUTION

DO NOT USE CHLORINE BLEACH OR STARCH - WILL DAMAGE THE HAT

Suspend headnet from top of brim, drape headnet over shoulders.

DO NOT REMOVE THIS LABEL”

Add paragraph: "3.3.9 Adhesive (when applicable). The adhesive for the optional method of holding the top and bottom brim and brim interlining prior to performing the quilting stitching of the brim shall be a synthetic resin emulsion type adhesive with good machining properties. The adhesive shall have a viscosity of 2000 to 2500 C.P.S when evaluated on a Brookfield viscosimeter (see 6.5.2) at 77°F using a number 3 spindle at 20 rpms, a solids content of 57 ± 2 percent, a pH of 4.0 to6.0 and shall weigh 9.2 ± 0.2 pounds per gallon. The adhesive shall be colorless when dry."

Para. 3.4 Ventilators, with washers.

Paragraph 3.4, delete and substitute "3.4 Ventilators, with washers. The screen-type ventilators with washers shall be brass, tan in color for Type II, have a black chemical finish for the Type III hat, and an antique brass finish for the Types IV, V, VI and VII hat. The hat ventilators shall have a 9/16 + 1/16 inch opening with a No. 50-70 mesh and a 40 to 60% opening (see 6.5). As an alternate, type II hats may use black chemical finish."

Paragraph 3.5 Design. Line 1, delete “Types II, III, IV, V, and VI” and substitute “Types II, III, IV, V, VI, and VII”. Line 2, delete “Types II, III, IV, V, and VI” and substitute “Types III, IV, V, VI, and VII”.

Add paragraph: "3.3.9 Adhesive (when applicable). The adhesive for the optional method of holding the top and bottom brim and brim interlining prior to performing the quilting stitching of the brim shall be a synthetic resin emulsion type adhesive with good machining properties. The adhesive shall have a viscosity of 2000 to 2500 C.P.S when evaluated on a Brookfield viscosimeter (see 6.5.2) at 77°F using a number 3 spindle at 20 rpms, a solids content of 57 ± 2 percent, a pH of 4.0 to6.0 and shall weigh 9.2 ± 0.2 pounds per gallon. The adhesive shall be colorless when dry."

3.4, END OF PARAGRAPH, ADD: "AS AN ALTERNATE, TYPE II HATS MAY USE BLACK CHEMICAL FINISH."

PAGE 8

“TABLE III Pattern parts” Delete in its entirety and replace with the following:

“TABLE III Pattern parts.

|  |  |  |  |
| --- | --- | --- | --- |
| Material | Pattern Abbreviation | Pattern Nomenclature | Cut parts |
| Basic material | 444105-TOP CROWN | Top Crown | 1 |
|  | 444105-TOP SIDE | Top Side | 1 |
|  | 444105-BOTTOM SIDE | Bottom Side | 1 |
|  | 444105-SIDE CROWN ALT | Side Crown Alternate | 1 |
|  | 444105-SIDE LINING | Side Lining 1/ | 1 |
|  | 444105-TOP BRIM | Top Brim | 1 |
|  | 444105-BOTTOM BRIM | Bottom Brim | 1 |
| Non-woven material | 444105-BRIM INTRLIN | Brim Interlining | 1 |
|  | 444105-HEADBAND STAY | Headband Stay | 1 |

1/ Type III may be cut from ground shade fabric.”

Table IV, BRIM FABRICATION, after section (a), add note:

"NOTE: Brim may be bound with optional fusible interlining (paragraph 3.3.3.1) or adhesive (paragraph 3.3.9) before quilting.

PAGE 9

Table IV. Assembly and configuration requirements, SIDE SEAM AND CAMOUFLAGE BAND, line g., delete the following in its entirety: "g. Instruction labels shall be stitched on four sides to the inside side lining on the left side of the hat. Stitching shall not pass over printing". Replace with the following: "g. Label Placement: Combination identification and size label shall be positioned on the inside lining on the right side of the hat (as worn) and the instruction label shall be positioned on the inside lining on the left side of the hat (as worn). As an alternate, the combination identification, size, and instruction label shall be positioned on the inside lining on the left side of the hat (as worn). Top edge of label shall be oriented toward the crown."

Table IV. Assembly and configuration requirements, SIDE SEAM AND CAMOUFLAGE BAND, Add: "h. Labels shall be stitched on four sides. Stitching shall not pass over printing."

Table IV. Assembly and configuration requirements, SIDES TO CROWN SEAMS, line c., at beginning, add: "Material for side lining shall be oriented so that the printed side is facing the wearer."

Table IV, BRIM FABRICATION, after section (a), add note:

"NOTE: Brim may be bound with optional fusible interlining (paragraph 3.3.3.1) or adhesive (paragraph 3.3.9) before quilting.

PAGE 9

Table IV. Assembly and configuration requirements, SIDE SEAM AND CAMOUFLAGE BAND:

Section e. line 1, delete "Types III and IV" and substitute "Types III, IV and VI".

Section f. line 1, delete "Types III and IV" and substitute "Types III, IV and VI".

Section g., delete the following in its entirety: "g. Instruction labels shall be stitched on four sides to the inside side lining on the left side of the hat. Stitching shall not pass over printing". Replace with the following: "g. Label Placement: Combination identification and size label shall be positioned on the inside lining on the right side of the hat (as worn) and the instruction label shall be positioned on the inside lining on the left side of the hat (as worn). As an alternate, the combination identification, size, and instruction label shall be positioned on the inside lining on the left side of the hat (as worn). Top edge of label shall be oriented toward the crown."

Add section "h. Labels shall be stitched on four sides. Stitching shall not pass over printing."

Table IV. Assembly and configuration requirements, SIDES TO CROWN SEAMS,

Section c., at beginning, add: "Material for side lining shall be oriented so that the printed side is facing the wearer."

PAGE 10

Table V. Manufacturing cut and finish dimensions, SEAMING OF SIDE TO CAMOUFLAGE BAND. Delete the following:

Item Dimension Description Dimension

 And tolerance(inches)

6 Instruction label or combination label

 distance from raw edge of side lining. 3/4 - 1

Replace with the following:

Item Dimension Description Dimension

 And tolerance(inches)

6 Combination identification-size label,

 Instruction label or combination label

 distance from raw edge of side lining. 3/4 – 1

PAGE 16

4.5.1 Laces. Line 1 delete “Table VII.” and add “Table VIIA”

“TABLE VII Lace colorfastness tests” Delete in its entirety and replace with the following:

|  |  |  |
| --- | --- | --- |
| “TABLE VIIA Lace colorfastness tests. Characteristics  | Requirement paragraph  | Test method  |
| Colorfastness: Light (after 40 hrs or 170 kilojoules) Laundering (after 4 cycles) Crocking (Wet and Dry) Perspiration (acid & alkaline)  | 3.4.5.2 3.4.5.2 3.4.5.2 3.4.5.2  | AATCC-16.2 or 16.3 AATCC-61 Test 3A AATCC-8 AATCC-15”  |

PAGE 18

TABLE VIII. End item visual defects. Add the following:

Examine Defect Description Major Minor

Brim Rows of stitching irregularly spaced 232

TABLE VIII. End item visual defects. Add the following:

Examine Defect Description Major Minor

Crown and

Seams Camouflage band attached to side

 with less than 1/8 inch or more

 than 1/4 inch fullness 1/ 2/ 241

 Excess fullness at sides on outside 248

 Excess fullness at side on inside 249

 lining

 Bar tacks on camouflage band not

 perpendicular to bottom side piece

 seaming (2 or more) 250

 Camouflage band not straight 251

PAGE 19

TABLE VIII. End item visual defects. Add the following note:

1/, delete “Types II, IV, and V” and substitute “Types II, IV, V, VI

2/ The fullness of the webbing shall be determined between two bar tacks as a height dimension measuring the distance from the hat to the inside of the webbing loop.

6.1 Intended use, line 3, delete “Types IV sun hat” and insert “Types IV, VI, and VII sun hats”

6. NOTES

Delete the following in its entirety “(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)” and replace with the following:

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

PAGE 20

6.5, 6.5.1 and 6.5.2, delete and substitute:

"6.5 Sources

6.5.1 Ventilators.

6.5.1.1 Source of supply for ventilators. Part No. D53, screen-type ventilators with washers (see 3.4) from Stimpson Company, 900 Sylvan Avenue, Bayport, NY 11705 (www.stimpsonco.com) have been found acceptable.

6.5.1.2 Color guide for ventilators. Recommended finish color for antique brass is Stimpson styles AB #32, AB #39, AB #42, AB #45, or AB #55 for Types II, III, IV and V; and AB #24, AB #59, AB #60, or AB #70 for Type VI and VII, or equal."

6.5.2 Viscosimeter. The Brookfield viscosimeter may be obtained from Brookfield Engineering Laboratories, Inc. 11 Commerce Boulevard, Middleboro, MA 02346, (www.brookfieldengineering.com)."

Delete Paragraph 6.7 in its entirety and replace with the following:

“6.7 Subject term (key word) listing.

Head gear

Heat protection

Operational Camouflage Pattern (OCP)

Operation Enduring Freedom Camouflage Pattern (OEF-CP)

Protective clothing

Protective covering

Universal Camouflage Pattern (UCP)”

PAGE 22

FIGURE 2, delete “(Types II, IV and V)” and substitute “(Types III, IV, V, VI and VII)”

PAGE 23

NOTES:

Delete “https://assist.daps.dla.mil/” and replace with “https://assist.dla.mil”.

For contracts still using MIL-H-44105B, interim changes follow:

PAGE 1

1.2 Add the following new type:

"Type IV - Universal Camouflage Pattern, Water Repellent Treated"

"Type V - Cloth, Twill Air Force Digital Tiger Stripe Print Camouflage Pattern, Type III, Class 1"

PAGE 2

2.1.1, under "SPECIFICATION, FEDERAL": Delete "KK-L-271" and its title,

Add the following specification under "SPECIFICATIONS MILITARY":

"MIL-C-44436 - Cloth, Camouflage Pattern, Wind Resistant Poplin, Nylon/Cotton Blend, Water Repellent Treated

MIL-DTL-32068 - Leather, Cattlehide, Strap, Vegetable Tanned"

PAGE 3

Add, OTHER GOVERNMENT DOCUMENTS

YACL-05-01 - Cloth, Twill Air Force, Digital Tiger Stripe Print Camouflage Pattern

PAGE 4

Add the following new paragraph:

"3.2.1.3.1 Type V, The basic material shall be nylon, cotton twill conforming to Type III, class 1 of YACL- PD-05-01

Type IV. The basic material shall be a cotton ripstop poplin cloth conforming to class 7 of MIL-C-44436."

3.2.1.4, line 1, after "type II": Add "and IV".

3.2.1.4, line 1, after "type II": Add "and V"

3.2.3, at the end of the paragraph: Add the following "As an alternate, the breaking strength of the cloth in the machine direction shall be 45 pounds minimum and the breaking strength of the cloth in the cross machine direction shall be 25 pounds."

3.2.4, line 2, After "I": Delete "and II" and substitute "V"

3.2.4, line 2, after "I": Delete "and III" and substitute "III and IV".

Line 3, after "Green 106": Add "for type V shall be Foliage Green 504 or Sage Green 1641"

Line 3, after "Green 106": Add "for types I and II and shall be Foliage Green 504 for type IV."

3.2.5, line 3, after "Tan 380: Add "and for type V shall be Foliage Green 504 or Sage Green 1641."

3.2.5, line 3, after "Tan 380": Add "and for type IV shall be Foliage Green 504."

3.2.6, lines 3 and 6: Delete "KK-L-271" in both places and substitute "MIL-DTL-32068".

NOTE: A-A-55093 may be used in preference to V-L-61.

Line 5: Delete "type II" and substitute "types II and IV".

Line 5: Delete "type II" and substitute "type V".

PAGE 5

3.2.7, line 2, after "66019.": Add . "The thread color for the type IV hat shall be Foliage Green 504."

Line 2: Delete "and III" and substitute ", III and IV".

3.2.7, Thread. Add the following at the end of paragraph, "The thread shall be a 2-ply; cotton-covered polyester, 35 and 40 Tex for the hat and 65 Tex for quilting the brim and water repellent treated with a durable water repellent treatment. The color of the thread shall be AF Sage Green 1641 or Foliage Green 504. The thread shall show "good" colorfastness to laundering and light when tested in accordance to AATCC-61 and AATCC 16, respectively."

3.2.8, Labels. Delete (3.2.8, 3.2.8.1, 3.2.8.2) in their entirely and replace with the following, "Each hat shall have a size, identification and instruction label or a combination size, identification and instruction label conforming to type VI of MIL-DTL-32075. The identification label shall conform to class 1, the size label shall conform to class 2, the instruction label shall conform to class 3, and the combination label shall conform to class 4 of MIL-DTL-32075. The color of the labels shall be white or approximate the ground shade of the basic fabric. The inscription shall have a minimum font size of 10. The inscription legibility, label, and label attachment shall last the expected life of the hat. The size shall be marked with a numerical size."

3.2.8.2.1, (Now known as 3.2.8.1) Replace, "For types I and III." and substitute with, "For types I, III, and V.

3.2.8.2.2: Delete and substitute:

 "3.2.8.2.2 For type II and IV. The instruction label for types II and IV shall include the following information:

 1. Initial loose fit required for continued comfort.

 2. Hand or machine wash using permanent press cycle, cold water and mild detergent without chlorine bleach.

 3. Do not wring or twist. Rinse in clean, cold water.

 4. Dry at low heat (do not exceed 130ºF) or hang dry.

 CAUTION

Chlorine bleach or starch will damage the hat

Suspend headnet from top of brim, drape headnet over shoulders.

DO NOT REMOVE THIS LABEL"

PAGE 6

3.2.9, line 3, after "hat,": Add "and an antique brass finish for the type IV hat,".

3.2.9, LINE 3, AFTER "hat," Add "and an antique brass finish for the type V hat,"

3.3, line 3: Delete "and III" and substitute ", III and IV".

3.3, line 3: Delete "and III" and substitute ", III and V"

PAGE 13

Table II, operation 6.e, line 1: Delete "and III" and substitute ", III and IV".

Table II, operation 6.e, line 1: Delete "and III" and substitute ", III and V".

PAGE 24

Table IV, footnote 1/: Delete "and III" and substitute ", III and IV".

Table IV, footnote 1/, line 1: Delete "and III" and substitute ", III and V".

PAGE 26

6.1: Add the following to the end of the paragraph: "The type IV hat is intended for use by military personnel of the Department of Defense for special purpose in all environments."

6.1, Line 1, Delete "and III" and substitute ", III and V"

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Figure 1: Delete "AND III" and substitute ", III AND IV".

Figure 1: Delete "AND III and substitute ", III AND V".

Interim Changes to A-A-55093 (SUN HAT ONLY):

Page 2

Material. Paragraph 3, line 4 states "#except Type II, Class 2, which shall braid one pair over and one pair under or one end over and one end under#". Delete "or one end over and one end under". This sentence shall now read "#except Type II, Class 2, which shall braid one pair over and one pair under or one end over and one end under, and type III, class 1, which shall be square."

Page 3, Table I. Physical Requirements. Delete:

Type Class Width Carriers Ends per Warp

 Tolerance Min Carrier Ends

 (+- 1/32 in.) Min Min

II 2 8/32 44 1/ 1 or -

 2 2/

Stuffer Pick Breaking

 Min Per Strength

 Inch (Pounds)

 Min Min

 - 17 190

Add the following:

Type Class Width Carriers Ends per Warp

 Tolerance Min Carrier Ends

 (+- 1/32 in.) Min Min

II 2 8/32 44 1/ `2 -

Stuffer Pick Breaking

 Min Per Strength

 Inch (Pounds)

 Min Min

 - 17 190

Page 3

Table I. Physical Requirements. Delete Note 2/ in its entirety.

**SHADE EVALUATION REQUIREMENTS FOR ALL ACU SUN HATS**

## Shade standards applicable to ACU items

The color of the test specimen shall match the standard sample viewed using AATCC Evaluation Procedure 9, Option A, with sources simulating artificial daylight D75 illuminant with a color temperature of 7500 (+/- 200)°K, with illumination of 100 (+/- 20) foot candles, and shall be a good match to the standard sample under incandescent lamplight at 2856 (+/- 200)°K.

## Shade evaluation of cloth

### General

(a) SAMPLING: Notwithstanding any current provisions of the fabric specification, the following shade evaluation shall apply to this solicitation. Swatches will be cut by the Contractor from those pieces or rolls selected by the Government representative in accordance with the table below. Swatches shall be 4 by 24 inches for single color cloth, 12 inches by full width for most multi-colored camouflage cloth, and 24 inches by full width for Operational Camouflage Pattern and Operation Enduring Freedom Camouflage Pattern cloth.

|  |  |
| --- | --- |
| Lot Size | No. of Pieces to be Sampled |
| 1 to 8 pieces | Each piece |
| 9 to 25 pieces | 8 pieces |
| 26 to 90 pieces | 20 pieces |
| 91 to 160 pieces | 32 pieces |
| over 160 pieces | 1 of 5 pieces |

The Government representative (QAR) shall ensure that each piece is cut in half and identify each half with the piece number from which it was cut. One set of swatches (one side of the roll from each of the full-width sampled rolls) and the tally list of piece numbers for each roll from the lot shall be forwarded to the DLA Product Testing Center for evaluation. The remaining swatches shall be retained at the plant for use by the Quality Assurance Representative (QAR).

If one or more of the shade swatches submitted are found unacceptable, the entire lot shall be rejected. A lot that was rejected for shade shall be screened and all pieces in the lot defective for shade shall be removed before such a lot is resubmitted. Resubmitted lots shall again be subjected to the sampling and shade evaluation prescribed herein. This requirement does not negate the Contractor's responsibility to perform shade evaluation prior to submittal of a lot to the Government. Each roll of fabric acceptable for shade from which a shade piece has been removed shall be cut by the Contractor from selvage to selvage so that there will be no evidence of the shade piece cut-out. The portion removed shall not be included in the yardage indicated on the piece ticket. If the Contractor reworks and resubmits rolls originally rejected for shade or finish, it shall not combine the rejected rolls with other lots or with lots rejected for other causes. Such rejected rolls shall be combined to form one resubmitted lot. Each piece shall retain its original piece number, suffixed with an "X". The lot number shall also be suffixed with an "X".

(b) When Section 3 of the fabric specification contains a specific requirement for uniformity of shade and when the standard sample is referenced for uniformity of shade, the swatches submitted in accordance with (a) above shall also be evaluated for uniformity of shade.

(c) The Contractor shall transmit the swatches to:

 For UCP and OEF-CP:

|  |  |
| --- | --- |
|    | DLA Product Testing Center Analytical700 Robbins AvenuePhiladelphia, PA 19111Attn: Bldg 5DEmail: Jamie.Hieber@dla.milardra.farally@dla.mil |

 - When sending UCP and OEF-CP shade swatches to DLA do the following:

 - Send a hard copy of the DD1222 with the swatches in the mail

For OCP:

|  |  |
| --- | --- |
|    | US Army Natick Soldier RD&E CenterKansas Street, Bldg 5 Rm 122Natick, MA 01760-5000Attn: Melanie King/Rachel Matuszek |

 - When sending Operational Camouflage Pattern shade swatches to Natick do the following:

 - Send a hard copy of the DD1222 in Microsoft Word with the swatches in the mail

 - Send an electronic copy to melanie.a.king14.civ@mail.mil and rachel.l.matuszek.civ@mail.mil, with the Lot number as the subject.

The letter shall indicate "FOR GOVERNMENT SHADE APPROVAL" and contain the following information:

(1) Name of prime Contractor.

(2) Contract number.

(3) Nomenclature.

(4) Government inspection lot number.

(5) Number of swatches being submitted.

(6) QAR's name.

(7) Name and address of the QAR's base plant.

(8) Piece number of standard sample cited in contract.

(9) Tally list with piece numbers (not applicable to case swatching).

(d) If any swatches are rejected by the DLA Product Testing Center--Analytical for shade, those pieces from which the rejected swatches were cut will be removed from the lot. Each piece acceptable for shade from which a shade swatch has been removed shall be cut by the Contractor from selvage to selvage so that there will be no evidence of the shade swatch cut-out. The portion removed shall not be included in the yardage indicated on the piece ticket.

(e) If the Contractor reworks and resubmits pieces originally rejected for shade or finish, it shall not combine the rejected pieces with normal production or with lots rejected for other causes. Such pieces shall be combined to form one resubmitted lot. Each piece shall retain its original piece number, suffixed with an "X". The lot number shall also be suffixed with an "X".

**SHADE EVALUATION PROCEDURE for ABU Sun Hat**

The following procedures are for shade evaluations of the ABU cloth to determine acceptability of submitted samples to establish reliability for process performance.

(a) 100% SWATCHING: From each piece in the lot, the contractor shall cut a 12" X full width (header) shade swatch which is representative of the shade of the piece. The contractor shall cut these swatches into half and identify each swatch with the piece from which it was cut. One set of swatches and a tally list of piece numbers for each roll of the lot shall be forwarded to the DLA Product Testing Center--Analytical for evaluation. The remaining set shall be retained at the plant for use by the Quality Assurance Representative (QAR).

The swatches shall be identified and submitted to the DLA Product Testing Center--Analytical for shade evaluation. If one or more of the shade swatches submitted are found unacceptable, the entire lot shall be rejected. A lot that was rejected for shade shall be screened and all pieces in the lot defective for shade shall be removed before such a lot is resubmitted. Resubmitted lots shall again be subjected to the sampling and shade evaluation prescribed herein. This requirement does not negate the contractor's responsibility to perform shade evaluation prior to submittal of a lot to the Government.

(b) When Section 3 of the fabric specification contains a specific requirement for uniformity of shade and when the standard sample is referenced for uniformity of shade, the swatches submitted in accordance with (a) above shall also be evaluated for uniformity of shade.

(c) The contractor shall transmit the swatches to:

DLA Product Testing Center - - Analytical

700 Robbins Avenue

Philadelphia, PA 19111-5092

Attn: Jamie Hieber (ABU Fabric)

The DD 1222 shall indicate "FOR GOVERNMENT SHADE APPROVAL" and contain the following information:

(1) Name of prime contractor.

(2) Contract number.

(3) Nomenclature.

(4) Government inspection lot number.

(5) Number of swatches being submitted.

(6) QAR's name.

(7) Name and address of the QAR's base plant.

(8) Piece number of standard sample cited in contract.

(9) Tally list with piece numbers (not applicable to case swatching).

(d) If any swatches are rejected by the DLA Product Testing Center--Analytical for shade, those pieces from which the rejected swatches were cut will be removed from the lot. Each piece acceptable for shade from which a shade swatch has been removed shall be cut by the contractor from selvage to selvage so that there will be no evidence of the shade swatch cut-out. The portion removed shall not be included in the yardage indicated on the piece ticket.

(e) If the contractor reworks and resubmits pieces originally rejected for shade or finish, it shall not combine the rejected pieces with normal production or with lots rejected for other causes. Such pieces shall be combined to form one resubmitted lot. Each piece shall retain its original piece number, suffixed with an "X". The lot number shall also be suffixed with an "X".

Before Contractor is permitted to cut cloth, a passing DD1222 form for shade evaluation is required.

PACKAGING & INSPECTION TEXT

Marking shall be in accordance with MIL-STD-129.

(120 Sun Hats) of one size only shall be packed in a fiberboard shipping container conforming to ASTM-D-5118, Type CF, Style RSC, Grade 275, variety SW, Class domestic, with a double wall liner. Any commercial closure method cited in ASTM-D-1974 is acceptable except stapling.

SIGNIFICANT NOTE - "PALLETIZATION IS REQUIRED FOR THESE SUPPLIES".

NOTE: THE FOLLOWING APPLIES TO ALL NON-MANUFACTURED WOOD PACKAGING MATERIALS:

"All Wood Packaging Material (WPM) acquired by DOD must meet requirements of International Standards for Phytosanitary Measures (ISPM) 15, "Guidelines for Regulating Wood Packaging Materials in International Trade." DOD shipments inside and outside of the United States must meet ISPM 15 whenever WPM is used to ship DOD cargo, or when wood is being acquired by DLA for future use as packaging material. WPM is defined as wood pallets, skids, load boards, pallet collars, wooden boxes, reels, dunnage, crates, frame and cleats. Packaging materials exempt from the requirements are materials that have undergone a manufacturing process, such as corrugated fiberboard, plywood, particleboard, veneer, and oriented strand board (OSD). All WPM shall comply with one of the following official quality control programs:

Heat Treatment (HT) or Kiln Dried Heat Treatment (KD HT) in accordance with American Lumber Standard Committee, Incorporated (ALSC) Wood Packaging Material Program and WPM Enforcement Regulations (see http://www.alsc.org/; or

All WPM shall include certification/quality markings in accordance with the ALSC or NWPCA standards, as applicable. Markings shall be placed in an unobstructed area that will be readily visible to inspectors. Pallet markings shall be applied to the stringer or block on diagonally opposite sides of the pallet and be contrasting and clearly visible.

All containers shall be marked on a side other than the top or bottom, contrasting and clearly visible. All dunnage used in configuring and/or securing the load shall also comply with ISPM 15 and be marked with an ASLC approved DUNNAGE stamp. Failure to comply with the requirements of this restriction may result in refusal, destruction, or treatment of materials at the point of entry. The Agency reserves the right to recoup from the Contractor any remediation costs incurred by the Government."

PALLET SHALL BE 4 WAY ENTRY, WINGED TYPE. PALLETIZED LOAD DIMENSIONS SHALL NOT EXCEED 43 INCHES IN LENGTH, 52 INCHES IN WIDTH, AND 54 INCHES IN HEIGHT (INCLUDING THE PALLET).

THE PALLETIZED LOAD SHALL BE BONDED USING APPROVED COMMERCIAL BONDING MATERIALS. THE USE OF METAL BANDING, IN SECURING BOXES TO PALLETS, IS DISCOURAGED. PALLET LOADS SHALL CONTAIN THE SAME NUMBER OF CARTONS, OF IDENTICAL QUANTITIES, OF ONE NSN, TO THE MAXIMUM EXTENT POSSIBLE.

PALLET LOADS CONTAINING MORE THAN ONE NSN SHALL BE CLEARLY MARKED TO LIST ALL THE NSN'S CONTAINED IN THE LOAD. NO CARTON SHALL HAVE MORE THAN ONE NSN. AT THE END OF A SIZE RUN, NO MORE THAN ONE CARTON PER NSN MAY BE SHORT OR OVER THE SPECIFIED QUANTITY. SAID CARTON SHALL BE CLEARLY MARKED "SHORT" OR "OVER".

MIL-STD-147 IS REFERENCED FOR PALLETIZED LOADS.

IN ADDITION TO REQUIREMENTS SPECIFIED ABOVE THE FOLLOWING CLAUSE ALSO APPLIES:

52.247-9012 - REQUIREMENTS FOR TREATEMENT OF WOOD PACKAGING MATERIALS (WPM) - (JULY 2006)

MIL-STD-147 IS HEREBY REINSTATED AS FOLLOWS:

MIL-STD-147E DEPARTMENT OF DEFENSE

16 MAY 2008 STANDARD PRACTICE

 PALLETIZED UNIT LOADS

STANDARDS (COMMERCIAL)

ASME-MH1 American Society of Mechanical Engineers (ASME) Pallets, Slip Sheets, and Other Bases For Unit Loads, for construction of pallets.

MIL-STD-129P, WITH CHANGE 4 - DEPARTMENT OF DEFENSE STANDARD PRACTICE MILITARY MARKING FOR SHIPMENT AND STORAGE - DATED

19 SEPTEMBER 2007

INTERIM CHANGES:

OMISSION OF MARKINGS ON EXTERIOR SHIPPING CONTAINERS OF ITEMS

IN THE DLA TROOP SUPPORT CLOTHING AND TEXTILE (C&T) DIRECTORATE:

THE NOMENCLATURE AND MANUFACTURER'S NAME (WHEN THE NAME IDENTIFIES THE MATERIAL) SHALL BE OMITTED FROM ALL EXTERIOR SHIPPING CONTAINERS OF DLA TROOP SUPPORT C&T ITEMS, REGARDLESS OF MODE OF SHIPMENT.

IF THE MANUFACTURER'S NAME DOES NOT IDENTIFY THE MATERIAL AS BEING CLOTHING, IT MAY REMAIN. NSNS SHALL BE SHOWN ON ALL SHIPPING CONTAINERS OF C&T ITEMS, THE PACKING LIST SHALL BE PLACED INSIDE THE LAST CONTAINER TO BE LOADED FOR EACH SHIPMENT. THE WORDS "PACKING LIST HERE" SHALL BE STENCILED, NOT HAND LETTERED, ON THE CONTAINER.

252.211-7006 - RADIO FREQUENCY IDENTIFICATION (RFI) Required

(ref. T8379; Nov. 08, 2006)

Packaging examination. The fully packaged end item shall be examined for the defects listed below. The lot size shall be expressed in units of shipping containers. The sample unit shall be one shipping container fully packaged. The Inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 2.5.

Examine Defect

Marking Omitted; incorrect; illegible, of

(exterior) improper size, location, sequence

& Unit Pack, or method of application.

Materials Any component missing, damaged

 or not as specified.

Workmanship Inadequate application of components,

 such as: incomplete closure of

 container flaps, loose strapping,

 improper taping, or inadequate

 stapling. Bulged or distorted

 container.

Contents Number of intermediate containers

 per shipping container is more or

 less than required.

 Number of items per container is

 more or less than required.

Palletization examination. The fully packaged and palletized end items shall be examined for the defects listed below. The lot size shall be expressed in units of palletized unit loads. The sample unit shall be one palletized unit load, fully packaged.

The Inspection level shall be S-1 and the AQL, expressed in terms of defects per hundred units, shall be 6.5.

Examine Defect

Finished Length, width or height exceeds Dimensions specified maximum requirement.

Palleti- Pallet pattern not as specified.

zation 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 appli-

 cation.

DELETE CURRENT "BARCODE LABEL/TAG" REQUIREMENTS AND SUBSTITUTE THE FOLLOWING:

LABEL TAG. EACH ITEM SHALL BE INDIVIDUALLY BAR-CODED WITH A PAPER TAG FOR PERSONAL CLOTHING ITEMS. THE PAPER USED FOR THE TAGS SHALL BE STANDARD BLEACHED SULFATE HAVING A BASIS WEIGHT OF 100 POUNDS WITH A SMOOTH FINISH TO ACCEPT THERMAL TRANSFER AND DIRECT PRINTING. THE TAGS SHALL HAVE A HOLE AND SHALL BE ATTACHED TO EACH ITEM BY A FASTENER, CLEARLY LEGIBLE AND READABLE BY SCANNER. THE BAR CODING ELEMENT SHALL BE A 13 DIGIT

NATIONAL STOCK NUMBER (NSN). THERE SHALL BE A 12 DIGIT UNIVERSAL PRODUCT CODE (UPC) ASSIGNED FOR ALL NSNS BY THE GOVERNMENT. THE INITIAL "UPC" MUST APPEAR BENEATH THE CODE. THE BAR CODES FOR NSN AND UPC SHALL BE A MEDIUM TO HIGH DENSITY AND SHALL BE LOCATED SO THAT THEY ARE COMPLETELY VISIBLE ON THE ITEM WHEN IT IS FOLDED AND PACKAGED AS SPECIFIED. THE LABEL'S LOCATION SHALL CAUSE NO DAMAGE TO THE ITEM.

.

NOTE: UNIVERSAL PRODUCT CODE INFORMATION THE GOVERMENT ASSIGNED UNIVERSAL PRODUCT CODE (UPC) MUST BE PLACED ON ALL SHIPPING CARTONS ON WHICH THE NSN APPEARS.

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THE FOLLOWING DEFECTS APPLY FOR BARCODE LABELS/TAGS:

.

BAR CODE OMITTED OR NOT READABLE BY SCANNER

.

HUMAN-READABLE INTERPRETATION (HRI) OMITTED OR ILLEGIBLE

.

NOT VISIBLE ON FOLDED, PACKAGED ITEM CAUSES DAMAGE TO THE ITEM

.

NOTE: IF THE END ITEM IS PLACED IN A PLASTIC BAG - USE TYPE VII (PRESSURE SENSTIVE LABEL) OF MIL-DTL-32075.

IF THE END ITEM IS TIED IN A BUNDLE OR LEFT AS AN INDIVIDUAL ITEM, USE TYPE VIII (TAG, PAPER) OF MIL-DTL-32075.