Technical and Quality Requirements for the Unisex ACU Trouser contracts

DLA Troop Support

This document contains contract requirements applicable to all types and classes of Unisex ACU Trousers. This information supplements other contract requirements which may exist to cover similar topics.

This document is subject to revision via contract modification. Each section is marked with a date showing when that section was last updated. The entire document will be periodically reissued in full with all updates incorporated.

DLA TROOP SUPPORT C&T AQAR is also part of this contract and is referenced throughout this document.

END ITEM TECHNICAL REQUIREMENTS

ACU Trouser, GL/PD 14-05C

This section last updated: 04/25/2024

Trouser, Army Combat Uniform, Permethrin Treated, Operational Camouflage Pattern (OCP) (PGC03977) shall be made in accordance with Type I, Class 2, Style A of GL/PD 14-05C.

Trouser, Army Combat Uniform, Flame Resistant, Permethrin Treated, Operational Camouflage Pattern (OCP) (PGC03819) shall be made in accordance with Type III, Class 2, Style A of GL/PD 14-05C.

Sewing pattern

The Contractor is responsible for adjusting patterns as necessary to anticipate dimensional changes and ensure that the finished garment meets the required finished measurements in Table VIII. (See paragraph 3.4.1.2 and 3.10)

Request pattern by style name and date to ensure that the correct pattern is provided by the government.

Trouser, Unisex Army Combat Uniform, PD14_05A
Pattern Date: 9 June 2015

Interim changes to GL/PD 14-05C, January 25, 2024:

Significant note: The permethrin treatment shall be applied to finished Class 2 trousers by a treatment facility approved by the Army for each item being treated.
The permethrin treatment shall be applied at the fabric level by a treatment facility approved by the Army for each item being treated.

Additional notes for GL/PD 14-05C:

1. Regarding paragraph 3.8.3 Insect protection/identification/care label (Class 2 only, all types and styles) and paragraph 3.8.4 Hang tag, insect protection (Class 2 only, all types and styles:
Where label description calls for "Insect Repellent Brand Name", the brand name shall be printed in standard text (to match the rest of the label) rather than the company's proprietary logo.

2. Wherever seam stitching or topstitching is meant to end at a bartack (such as at the side hanging pocket opening) stitching shall stop at the bartack within 1/8" tolerance. Side hanging pocket opening shall be measured as actual opening size rather than between bartacks. The opening shall not be made smaller due to stitching past the bartack.

3. All garment pieces shall be cut and assembled with the warp in line with the directional line markings (often labeled “Cut on warp”) as marked on the government-furnished pattern, including pockets and small pieces (see paragraph 3.10).

4. GL/PD 14-05C paragraph 3.10 states "The Government patterns provide a seam allowance of 1/2 inch for outseams, seat seams, and crotch seams, 1/4 inch allowance for hip pocket flaps and 3/8 inch allowance for all other seams", but “Minor modifications to the pattern are permitted where necessary to accommodate manufacture’s processes to include garment treatments and use of automatic equipment." Ensure that all finished dimensional requirements are met.

5. Reference GL/PD 14-05C Table VI, Waistband attachment: regardless of attachment method used, stitching shall continue across fly to edge of trouser front.

6. Stamps may be used in the interior of the garment for vendor tracking or processing purposes. When stamps are used, they shall be positioned so that they are not visible from the outside of the garment when worn. Any bleed-through or positioning of the stamp that makes it visible from the outside of the garment when worn is considered a major defect #154. The underside of flaps and the space between the pocket top and pocket flap are considered visible when worn because they will be visible when opened.

7. For garments manufactured by a subcontractor, the Identification and Care label (see paragraph 3.8.2,3.8.2.1 and 3.8.2.2), “Contractor Name” section shall read: "Manufactured by (subcontractor

name) for (prime contractor name)". Identification and Care label shall state whether the uniform is Style A (unisex) or Style B (female).

8. All specifications outlined in GL/PD 14-05C shall be the most current specification listed on Assist unless outlined in this document.

Interim changes to reference documents

This section last updated: 09.07.2023

DLA Troop Support C&T AQAR

Revision 1, dated August 2021

**Special note: Contractors shall ensure that blocks 2 and 15 of the form DD1222 are updated to reflect the correct information. Historically, both blocks contained the information of the DCMA QAR and their stamp/signature. When contractor's representative samples, these blocks shall include the contractor's representative's information. Block 23 shall still include the DCMA QAR to receive the results of the report even though they may not be sampling the material to be tested.

MIL-PRF-32659

Dated 30 Jul 2020
Vector Protection Treatment

V-B-871F - Button, Sewing, Hole and Button Staple (plastic)

CHANGES TO V-B-871F, BUTTON, SEWING HOLE, AND BUTTON STAPLE (PLASTIC), APPLICABLE TO THIS CONTRACT ONLY:

PAGE 3

Paragraph 2.2 Other publications.

Delete American Society for Testing and Material (ASTM) and change to ASTM INTERNATIONAL.

Delete ASTM's contact address in its entirety and change to the following:

(Copies of documents are available online at www.astm.org or from the ASTM INTERNATIONAL, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959.)

Paragraph 2.3 Order of Precedence. Add "Unless otherwise stated herein or in the contract," to the beginning of the paragraph.

FED-STD-4 - Glossary of Fabric Imperfections

ADDITIONAL INFO FOR FED-STD-4 GLOSSARY OF FABRIC IMPERFECTIONS:

REVISION B: 7/29/64; AMENDMENT 2: 9/12/75
NOTICE 1, DATED 10/1/87.

DEV. TO FED. STD. 4B & AM. 2, PAGE 2, SEC.I. PARA. 2.1. IN IMPERFECTION COMMERCIAL TERMINOLOGY AND GLOSSARY NO. COLUMNS, AFTER SHADE BAR - 14 INSERT: "SHADED CLOTH-61B".

PAGE 8 PARA. 3.4, GLOSSARY NO. "61A- OFF SHADE", IN "DEFINITION" COLUMN, DELETE ": SHADED SIDE TO SIDE, SIDE TO CENTER OR END TO END".

ADD NEW GLOSSARY NO. "SHADED CLOTH "61B-SHADED CLOTH (SHADED SIDE TO SIDE, SIDE TO CENTER OR END TO END) WITH THE FOLLOWING DEFINITION: "COLOR DIFFERENCE BETWEEN THE RESPECTIVE CLOTH AREAS".

PAGE 22, SECTION III, PARAGRAPH 2.1, IN "IMPERFECTION COMMERCIAL TERMINOLOGY" AND GLOSSARY NO." COLUMNS, AFTER "SHADE BAR-15" INSERT: "SHADED CLOTH - 62A"

PAGE 27, PARAGRAPH 3.4, GLOSSARY NO. "62-OFF SHADE" IN "DEFINITION" COLUMN DELETE: "SHADED SIDE TO SIDE, SIDE TO CENTER OR END TO END".

ADD NEW GLOSSARY NO, "62A-SHADED CLOTH (SHADED SIDE TO SIDE, SIDE TO CENTER OR END TO END)" WITH THE FOLLOWING DEFINITION: "COLOR DIFFERENCE BETWEEN THE RESPECTIVE CLOTH AREAS."

DEVIATION FROM FED. STD. 4B, AND AMEND 2:

PG 2, SECTION 1, PARA.2.1, IN "IMPERFECTION COMMERCIAL TERMINOLOGY" AND "GLOSSARY NUMBER" COLUMNS, AFTER "SHADE BAR-14", INSERT: "SHADED CLOTH 61B".

PG 8, PARA.3.4, GLOSSARY NUMBER "61A-OFF SHADE" IN "DEFINITION" COLUMN, DELETE, "SHADED SIDE TO SIDE, SIDE TO CENTER OR END TO END".

ADD NEW GLOSSARY NO."61B SHADED CLOTH "SHADED SIDE TO SIDE, SIDE TO CENTER OR END TO END" WITH THE FOLLOWING DEFINITION; "COLOR DIFFERENCE BETWEEN THE RESPECTIVE CLOTH AREAS."

PAGE 22, SECTION III, PARAGRAPH 2.1, IN "IMPERFECTION COMMERCIAL TERMINOLOGY" AN GLOSSARY NO." COLUMNS, AFTER "SHADE BAR-15" INSERT: "SHADED CLOTH - 62A"

PAGE 27, PARAGRAPH 3.4, GLOSSARY NO "62-OFF SHADE" IN "DEFINITION" COLUMN DELETE: "SHADED SIDE TO SIDE, SIDE TO CENTER OR END TO END".
ADD NEW GLOSSARY NO, "62A-SHADED CLOTH (SHADED SIDE TO SIDE, SIDE TO CENTER OR END TO END)" WITH THE FOLLOWING DEFINITION: "COLOR DIFFERENCE BETWEEN THE RESPECTIVE CLOTH AREAS."

A-A-50198A - Thread, Gimp, Cotton, Buttonhole

ADDITIONAL INFORMATION FOR A-A-50198A

NO ADDITIONAL INFORMATION

A-A-50199A - Thread, Polyester Core, Cotton or Polyester-Covered

ADDITIONAL INFORMATION FOR A-A-50199A

PAGE 2, DELETE SECTION 4 IN ITS ENTIRETY AND SUBSTITUTE:
"4. PRESERVATION, PACKING AND MARKING.
4.1 PRESERVATION, PACKING AND MARKING SHALL BE SPECIFIED IN THE CONTRACT OR ORDER. (SEE 5.2)."

PAGE 3,
PARAGRAPH 5.2 ADD "e. PACKAGING REQUIREMENTS (SEE 4.1)

PARAGRAPH 5.3, AFTER LINE 2,
DELETE REMAINDER AND SUBSTITUTE: "AVAILABLE ONLINE AT http://assist.daps,dla.mil".

CHANGES TO THREAD, POLYESTER CORE, COTTON OR POLYESTER-COVERED;
A-A-50199A, DATED JULY 31, 2006, APPLICABLE TO THIS CONTRACT ONLY:

PAGE 2

TABLE II DELETE THE COLORFASTNESS ROW IN ITS ENTIRETY AND REPLACE WITH THE FOLLOWING:

COLORFASTNESS:		
LAUNDERING (AFTER 3 CYCLES)	3-4 MIN	AATCC 61 TEST 3A 3/, 4/
DRY HEAT AT 376 degrees +/- 6 degrees F	3-4 MIN.	AATCC 117 3/
LIGHT (AFTER 40 HRS OR 170kJ)	3-4 MIN.	AATCC 16 OPTION 1 OR 3 3/
WET DRY-CLEANING (WHEN SPECIFIED)	3-4 MIN.	AATCC 132 3/, 5/
PERSPIRATION (WHEN SPECIFIED)	3-4 MIN.	AATCC 15 3/, 5/
WEATHERING (AFTER 80 HRS) (WHEN SPECIFIED)	3-4 MIN.	AATCC 169 3/

PAGE 4

DELETE 3.11 IN ITS ENTIRETY AND REPLACE WITH THE FOLLOWING:

3.11 TOXICITY. THE FINISHED THREAD SHALL NOT PRESENT A HEALTH HAZARD AND SHALL SHOW COMPATIBILITY WITH PROLONGED, DIRECT SKIN CONTACT WHEN TESTED AS SPECIFIED IN 4.1. CHEMICALS RECOGNIZED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA) AS HUMAN CARCINOGENS SHALL NOT BE USED.

DELETE 4.1 IN ITS ENTIRETY AND REPLACE WITH THE FOLLOWING:

4.1 TOXICITY TEST. WHEN REQUIRED (SEE 7.5), AN ACUTE DERMAL IRRITATION STUDY AND A SKIN SENSITIZATION STUDY SHALL BE CONDUCTED ON LABORATORY ANIMALS. WHEN THE RESULTS OF THESE STUDIES INDICATE THE heat
IS NOT A SENSITIZER OR IRRITANT, A REPEAT INSULT PATCH TEST SHALL BE PERFORMED IN ACCORDANCE WITH THE MODIFIED DRAIZE PROCEDURE. (SEE 7.3). IF THE TOXICITY

REQUIREMENT (SEE 3.11) CAN BE DEMONSTRATED WITH HISTORICAL USE DATA, TOXICITY TESTING MAY NOT BE REQUIRED (SEE 7.5).

PAGE 6

DELETE 7.3 OTHER PUBLICATIONS IN ITS ENTIRETY AND REPLACE WITH THE FOLLOWING:

REPEAT INSULT PATCH TEST - MODIFIED DRAIZE PROCEDURE -
PRINCIPLES AND METHODS OF TOXICOLOGY, (FOURTH EDITION) A WALLACE HAYES (EDITOR), PP 1057- 1060,200 1.

(COPIES ARE AVAILABLE ONLINE AT HTTP://WWW.TAYLORANDFRANCIS.CO.UKL OR FROM TAYLOR AND FRANCIS, 325 CHESTNUT STREET , PHILADELPHIA PA 19106.)

DELETE PARAGRAPH 7.4 IN ITS ENTIRETY AND CHANGE TO THE FOLLOWING:

7.4 STANDARD SAMPLES AND PATTERN DRAWINGS, ADDRESS THE CONTRACTING ACTIVITY ISSUING FOR BIDS OR REQUEST FOR PROPOSAL.

DELETE IN PARAGRAPH 7.5 LINES F. AND G. IN THEIR ENTIRETY AND REPLACE WITH THE FOLLOWING:

F. WHEN TOXICITY TESTING IS REQUIRED (SEE 3.11)
G. PRODUCT CONFORMANCE PROVISIONS (SEE 5.1)
H. PACKAGING REQUIREMENTS (SEE 6.1)

A-A-55195 - Thread, Para-Aramid, Spun, Intermediate Modulus

ADDITIONAL INFORMATION FOR A-A-55195:

NO ADDITIONAL INFORMATION

A-A-55217- Thread, Aramid, Spun Staple

ADDITIONAL INFORMATION FOR A-A-55217:

NO ADDITIONAL INFO

A-A-59826 - Thread, Nylon

ADDITIONAL INFORMATION FOR THREAD, NYLON, A-A-59826 DATED 03 MARCH 2009:

Thread, Nylon, A-A-59826, dated 03 March 2009, has replaced
Specification V-T-295E dated 1 August 1985.

MIL-DTL-32075 - Label: For Clothing, Equipage, and Tentage (General Use)

ADDITIONAL INFORMATION FOR MIL-DTL-32075:

MIL-DTL-32075, LABEL FOR CLOTHING, EQUIPAGE, AND TENTAGE, GENERAL USE REPLACES DDD-L-20

INTERIM SPECIFICATION CHANGES TO MIL-DTL-32075:

Page 4, para. 3.3.5, after "Type III or IV, Class 4 of" delete "DDD-L-20" and replace "MIL-DTL 32075,".

Page 6, TABLE I, "Physical requirements of the Type VI finished label" Under "Tearing strength" delete: "(lb.) minimum" and substitute: "(gms) minimum"

Page 12, Para 3.3.2.17, after "NSN" add "and the Universal Product Code (UPC) supplied by the Government, for all NSN"s."

MIL-DTL-5038 - Tape, Textile and Webbing, Textile, Reinforcing Nylon

ADDITIONAL INFORMATION FOR MIL-DTL-5038:

NO ADDITIONAL INFORMATION

CHANGES TO MIL-DTL-5038J, TAPE, TEXTILE AND WEBBING, TEXTILE, REINFORCING, NYLON, (NOVEMBER 5, 1996), APPLICABLE TO THIS CONTRACT ONLY:

PAGE 2

PARAGRAPH 2.3 NON-GOVERNMENT PUBLICATIONS. DELETE TINES 1-4 AND CHANGE TO THE FOLLOWING:

2.3 NON-GOVERNMENT STANDARDS AND OTHER PUBLICATIONS. THE FOLLOWING DOCUMENTS FORM A PART OF THIS DOCUMENT TO THE EXTENT SPECIFIED HEREIN. UNLESS OTHERWISE SPECIFIED, THE ISSUES OF THE DOCUMENTS ARE THOSE CITED IN THE SOLICITATION OR CONTRACT.

DELETE AMERICAN SOCIETY FOR TESTING AND MATERIAL (ASTM) AND CHANGE TO ASTM INTERNATIONAL.

DELETE ALL TEST METHODS (61, 16, 11 IA) UNDER AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS (AATCC) AND CHANGE TO THE FOLLOWING:

AATCC TEST METHOD 16 - COLORFASTNESS TO LIGHT
AATCC TEST METHOD 61 - COLORFASTNESS TO LAUNDERING: ACCELERATED
AATCC TEST METHOD ILL -WEATHER RESISTANCE OF TEXTILES: EXPOSURE TO DAYLIGHT AND WEATHER
AATCC EVALUATION PROCEDURE 1, GRAY SCALE FOR COLOR CHANGE
AATCC EVALUATION PROCEDURE 2, GRAY SCALE FOR STAINING
AATCC EVALUATION PROCEDURE 8, AATCC 9-STEP CHROMATIC TRANSFERENCE SCALE
AATCC EVALUATION PROCEDURE 9, VISUAL ASSESSMENT OF COLOR DIFFERENCES OF TEXTILES

PAGE 3

PARAGRAPH 2.4 ORDER OF PRECEDENCE.

ADD TO THE BEGINNING OF THE FIRST SENTENCE: "UNLESS OTHERWISE STATED HEREIN OR IN THE CONTRACT,".

PARAGRAPH 3.1 SAMPLES. DELETE LAST SENTENCE IN ITS ENTIRETY WITHOUT REPLACEMENT.

PARAGRAPH 3.4.3 MATCHING. DELETE IN IT'S ENTIRETY AND CHANGE TO THE FOLLOWING:

3.4.3 MATCHING. THE TAPE AND WEBBING SHALL BE A GOOD MATCH TO THE COLOR STANDARD SAMPLE WHEN TESTED AS SPECIFIED IN 4.3.3.1.

PARAGRAPH 3.4.4, LINE 3 COLORFASTNESS. DELETE "THE END ITEM TESTING TABLE" AND CHANGE TO "TABLE II".

PARAGRAPH 3.5.1, LINE 2 RESISTANCE TO LIGHT AND HEAT. DELETE "OPTION A" AND CHANGE TO "OPTION 1 OR 3".

PAGE 6

4.3.3 TABLE II, THIRD ROW:
LAUNDERING, COLUMN 3, ADD "7/" BESIDE "2/"
LIGHT, COLUMN 1, ADD (20hrs OR 85kJ)
LIGHT, COLUMN 3, DELETE "OPTION A" AND CHANGE TO "OPTION 1 OR 3" 8/

PAGE 7

ADD OR DELETE THE FOLLOWING FOOTNOTES TO THE END OF TABLE II AS NOTED.

4.3.3 TABLE II, FOOTNOTE 5/ LINES 2 AND 6. DELETE THE "A" AFTER "111" WITHOUT REPLACEMENT.

ADD FOOTNOTE 7/ RATED USING THE AATCC EVALUATION PROCEDURE 1, GRAY SCALE FOR COLOR CHANGE AND AATCC EVALUATION PROCEDURE 2, GRAY SCALE FOR STAINING.

ADD FOOTNOTE 8/ RATED USING THE AATCC EVALUATION PROCEDURE 1, GRAY SCALE FOR COLOR CHANGE.

ADD PARAGRAPH, 4.3.3.1 AFTER THE FOOTNOTES

4.3.3.1 VISUAL SHADE MATCHING EVALUATION. THE COLOR AND APPEARANCE OF THE TAPES AND WEBBING SHALL MATCH THE STANDARD SAMPLE WHEN VIEWED USING THE AATCC EVALUATION PROCEDURE 9, OPTION A OR C, WITH SOURCES SIMULATING ARTIFICIAL DAYLIGHT D75 ILLUMINANT WITH A COLOR TEMPERATURE OF 7500 (+200)degrees K ILLUMINATION OF 100 (± 20) FOOT CANDLES, AND SHALL BE A GOOD MATCH TO THE STANDARD SAMPLE UNDER INCANDESCENT LAMPLIGHT AT 2856 (+200)degrees K.

MIL-W-5664 - Webbing, Textile Elastic (Style B)
NO ADDITIONAL INFORMATION

MIL-PRF-32635- Cloth, Flame Resistant

Dated 9 October 19

PAGE 2

Paragraph 2.2 Government documents. Delete all information immediately after paragraph title to Paragraph 2.2.1 without replacement.

Paragraph 2.2.1 Specifications, standards, and handbooks. Delete N/A and replace with the following:

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

DEPARTMENT OF DEFENSE SPECIFICATIONS

MIL-STD-3064 - Evaluation of Quality of Textile Materials
(Copies of these documents are available online at https://quicksearch.dla.mil.)"

PAGE 3

Paragraph 2.3 Non-Government publications. Under ASTM INTERNATIONAL section, delete the following:

"ASTM D5430 - Standard Test Method for Visually Inspecting and Grading Fabrics" without replacement.

PAGE 14

Paragraph 4.6.5 Electrostatic decay test (Type V only). Line 2. Delete "4.6.6.1 through 4.6.6.3" and replace with "4.6.5.1 through 4.6.5.3"

PAGE 16

Paragraph 6.2 Acquisition requirements. Delete entire lines for "k and l" and replace with the following:

k. Flash Fire garments testing required (see 4.5 and 6.3)
l. Packaging (see 5.1)

PAGE 17

Paragraph 6.10 Classes. Line 3 Delete "MIL-PRF" and replace with "MIL-PRF-32635"

MIL-DTL-44436 - Cloth, Camouflage Pattern, Wind Resistant Poplin, Nylon/Cotton Blend

Note new revision MIL-DTL-44436 Rev C Dated 15 Oct 18

PAGE 2

Paragraph 2.2.1 Specifications standards, and handbooks. Delete the paragraph in its entirety and replace with the following:

"Paragraph 2.2.1 Specifications standards, and handbooks. N/A"

Paragraph 2.2.2 Other Government documents, drawings, and publications. Underneath DRAWINGS, Delete "U.S. ARMY RESEARCH, DEVELOPMENT, AND ENGINEERING COMMAND" and replace with "U.S. ARMY COMBAT CAPABILITIES DEVELOPMENT COMMAND SOLDIER CENTER"

Delete "(Copies of drawings are available from the U.S. Army Natick Soldier Research, Development and Engineering Center, ATTN: RDNS-SES-WC, 10 General Greene Avenue, Natick, MA 01760-5019.)" and replace with "(Copies of drawings are available from the U.S. Army Combat Capabilities Development Command (CCDC), Soldier Center, ATTN: FCDD-SCP-WC, 10 General Greene Avenue, Natick, MA 01760-5019.)"

Below the above, add the following:

"OTHER GOVERNMENT DOCUMENTS AND PUBLICATIONS"

Under FEDERAL TRADE COMMISSION, Delete "(Copies are available online at http://www.ftc.gov.)" and replace with the following: "(Copies of this document are available online at https://www.ftc.gov

PAGE 3
Paragraph 2.3 Non-Government publications.

Under AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS (AATCC). Delete "(Copies are available on line at http://www.aatcc.org.)" and replace with "(Copies of these documents are available online at https://www.aatcc.org.)"

Under AMERICAN SOCIETY FOR QUALITY (ASQ). Delete "(Copies are available online at http://www.asq.org.)" and replace with "(Copies of this document are available online at https://asq.org.)"

Under ASTM INTERNATIONAL., Delete "(Copies are available online at http://www.astm.org.)" and replace with "(Copies of these documents are available online at https://www.astm.org.)"

PAGES 3-4
Paragraph 2.3 Non-Government publications. - Continued
Under OTHER PUBLICATIONS. Delete "SDL ATLAS Fabric Defect Replica Scales are available online at http://www.sdatlas.com." And replace with the following:
"SDL ATLAS

Part Number 402985 – Slub/Knot Replica Set
(Replica set is available for purchase from SDL Atlas Customer Service, 1-803-329-2110.)"

PAGE 11
Paragraph 3.8.2 Wrinkle free finish (Class 8). Delete paragraph in its entirety and replace with the following:

"3.8.2 Wrinkle free finish (Class 8 and Class 14). The Class 8 and Class 14 cloths shall be given a wrinkle free finishing treatment to match the “hand” crispness, fabric appearance and smoothness of the guide sample provided when tested as specified in 4.4.1."

PAGE 13
Paragraph 4.4.1 End item testing. TABLE X. End item tests. Row 8.
Delete the row for Colorfastness in its entirety and replace with the following:

"Colorfastness:		4.5.2
Light	3.5.2	AATCC 16.3, Option 3 1/
Laundering	3.5.2	AATCC 61, Test 3A 2/, 3/
Perspiratio	3.5.2	AATCC 15 2/, 3/
n Crocking	3.5.2	AATCC 8 4/ "

PAGE 14
TABLE X. End item tests. - Continued , Row 4
Underneath "Fabric hand attribute (min)" insert "(Class 8 and 14)"

PAGE 17
Paragraph 6.5 Fabric defect replica scales. Delete paragraph in its entirety and replace with the following: "6.5 Replica set. The SDL Atlas Slub/Knot Replica Set is not available from their website at this time. Recommend calling customer service, 1-803-329-2110."

415541

GL/PD-10-08B - Patch Kit, Integrated, Flame Resistant (IPK)

Note new revision dated 14 October 2014

ANSI/ASQC Z1.4 - American National Standard Sampling Procedures and Tables for Inspection by Attributes

ADDITIONAL INFORMATION FOR ANSI/ASQC Z1.4:

Updated version: ANSI/ASQ Z1.4-2008.

SAE-AMS-STD-595 - Colors Used in Government Procurement

ADDITIONAL INFORMATION FOR SAE-AMS-STD-595:

COPIES OF SAE-AMS-STD-595 CAN BE OBTAINED FROM:
GENERAL SERVICES ADMINISTRATION - FEDERAL SUPPLY SERVICE BUREAU
SPECIFICATION SECTION, SUITE 8100
470 EAST L'ENFANT PLAZA, SW
WASHINGTON, DC 20407
PHONE (202) 619-8925.

Commercial sources are also available

GOVERNMENT LABORATORY TESTING OF CLOTH AND END ITEMS

This section last updated: 10/17/19

The use of electronic submission of DD form 1222 is authorized.

NOTE: AQAR Section 3.2 Government Acceptance Testing states that "Unless otherwise stated in the contract, testing performed at the DLA PTC for acceptance purposes will be completed in forty five (45) calendar days" – CURRENT contracts state 30 days and will remain applicable for all current and future BDU items.

Physical testing of materials

Refer to DLA TROOP SUPPORT C&T AQAR for more information on the Source Sampling program (also see updates to this in the "Lot formation and testing for components" section of this document).

For physical (non-shade) testing, in accordance with DLA TROOP SUPPORT C&T AQAR , Part I, the contractor's approved qualified laboratory will be required to forward a completed test report for each lot of cloth to the address below. The QAR will forward the completed DD form 1222. Samples for physical testing will only be forwarded upon request to:

DLA Product Testing Center Analytical
700 Robbins Avenue
Philadelphia, PA 19111
Attn: Bldg 5D
Email: paactlab@dla.mil

End item testing

In accordance with DLA TROOP SUPPORT C&T AQAR , Part 1, section 6. (7), all end item test reports shall be provided to the Government for review under the source sampling program.

For ACU Trouser end item testing requirements, GL/PD 14-05C, Table XI and terms of contract.

For ACU Coat end item testing requirements, see GL/PD 14-04B, Table IX and terms of contract.

All contractor test reports for permethrin testing shall be sent electronically to:
amy.l.johnson2.civ@mail.mil
bduteamlabs@dla.mil

All contractor test reports for other end item tests shall be sent electronically to:
Jessica.Raushel@dla.mil

SHADE EVALUATION REQUIREMENTS

This section last updated: 01.10.2024

Shade standards applicable to ACU items

The color and appearance of the [item] shall match the standard sample when viewed using the AATCC EP 9, Option C, (see 6.X) with a primary light source simulating the spectral quality of average daylight, CIE illuminant D65, with a color temperature of 6500 (±200) Kelvin (K) illumination of 100 (±20) foot candles. Alternatively, the color and appearance of the [item] shall match the standard sample with a primary light source simulating artificial daylight, CIE Illuminant D75, with a color temperature of 7500K (±200) illumination of 100 (±20) foot candles in lieu of D65. (See 6.X.X). The [item] shall also be a good match to the standard sample with a secondary source simulating the spectral quality of incandescent lamplight, CIE Illuminant A, with a color temperature of 2856K (±200).

NOTES:

A. All prime contractors of current and pending contracts must verify that DD1222s from suppliers indicate whether D65 or D75 light source was used for shade verification. If the light source is not indicated on the DD1222, D65 will be assumed by the Government Shade Laboratory.

B. Visual shade evaluation failures viewed under D65 shall not be reevaluated under a D75 primary light source.

C. All other terms and conditions remain unchanged.

Operational Camouflage Pattern (OCP) Garments

Standard sample for Cloth, Operational Camouflage Pattern, wind resistant poplin, nylon/cotton blend, conforming to class 14 (wrinkle free) of MIL-DTL-44436 is available on roll no. 3963 and is applicable for Shade, Appearance, and IR Spectral Reflectance. This standard shall apply before and after permethrin treatment, when applicable.

Standard sample for Cloth, Flame Resistant, conforming to MIL-PRF-32635, Type III, Class 3, Operational Camouflage Pattern (OCP) shall be Standard Roll # 3936 and is applicable 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.

Standard sample for Fastener Tapes, Hook and Loop, Synthetic, Tan 499, conforming to Type 2 of A-A-55126, is available on roll #3822 and is applicable for shade, appearance, colorfastness and spectral reflectance. Loop color in standard is applicable for both hook and loop.

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 SAE-AMS-STD-595.

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 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 OCP NYCO (MIL-DTL-44436B):

DLA Product Testing Center Analytical
700 Robbins Avenue
Philadelphia, PA 19111
Attn: Bldg 5D
Email: Uraina.Gray-Scully@dla.mil

- When sending OCP NYCO shade swatches to DLA do the following:
  - Send a hard copy of the DD1222 with the swatches in the mail

For FR OCP (MIL-PRF-32635):

US Army Natick Soldier RD&E Center
General Greene Ave, Bldg 5 Rm 122
Natick, MA 01760-5000
Attn: Natick Shade Lab

- When sending FR OCP shade swatches to Natick do the following:
  - Send a hard copy of the DD1222 with the swatches in the mail
  - Send an electronic copy, in Microsoft Word, usarmy.natick.rdecom-nsrdec.mbx.nati-rdns-natickshade@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".

2-Stage Shade Evaluation program for Permethrin treated ACU material

Applicable for Class 2 ACU Coats and Trousers only

The following describes the staged process for shade evaluation of cloth to be permethrin treated after garment manufacture.

Samples and DD1222s shall be sent to DLA Product Testing Center at the address in section "C" above.

Stage I - OPTIONAL.

When the Contractor opts for Stage I shade evaluation is, the QAR at the Mill is responsible for ensuring that a 12 inch by full width for Universal Camouflage Print (UCP) or 24 inch by full width for Operational Camouflage Pattern (OCP) and Operation Enduring Freedom Camouflage (OEF-CP) header is cut from the appropriate number of rolls in accordance with the above sampling plan.

The QAR shall ensure that the header is cut in half and identify each half with the piece number from which it was cut. One set of swatches (one half header from each of the 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). The QAR at the Mill shall complete a DD1222 in accordance with traditional procedures. If the given lot passes or fails Stage I, the fabric lot may move onto Stage II Evaluation at the Prime Contractor's risk.

If Stage I evaluation pass or fails, the lot may proceed to Stage II. No DD3440 will be issued for a failing Stage I.

Stage II.

Prime Contractor shall notify the Mill which Permethrin Treatment Facility will perform final permethrin treatment. This is where the samples must be treated for Stage II.

The QAR at the Mill is responsible for ensuring that a 12 inch by full width (for UCP) or 24 inch by full width (for OCP and OEF-CP) header is cut from each of the appropriate number of rolls in accordance with the above sampling plan. This is in addition to the header cut for the optional Stage I, if Stage I applies. The Mill shall arrange for a set of identifying tags for each roll to be

forwarded to the applicable Permethrin Treatment Facility along with each header. Each header shall be cut in half and each piece shall be identified with the piece number from which it was cut.

After permethrin treatment, one set of swatches (one half header from each of the 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). The QAR at the Mill shall complete a DD1222 in accordance with traditional procedures.

Pieces sent to the DLA Product Testing Center for evaluation shall be no smaller than 12 x 12 for UCP or 24 x 30 for OCP and OEF-CP and shall have the identifier tags securely attached.

The QAR at the treatment facility shall complete a DD1222 using the same lot and sample numbers as originally used to represent the lot in Stage I; Blocks 2 and 4 shall be updated to reflect the contact information for the treatment facility and their QAR, Block 8 shall state "Stage II Shade," and Block 13 shall contain the name of the Mill. If Stage I evaluation was done, the lab report number assigned by DLA Product Testing Center for the Stage I DD1222 must be clearly placed in block 16.

The Prime Contractor shall not cut the fabric until the Stage II has been approved via a DD 1222, or failed and accepted under a waiver via a DD 3440.

Before Contractor is permitted to cut cloth, passing/waived DD1222/DD3440 from Stage II evaluation is required.

Shade evaluation of components

***Shade evaluation of components, for Tan 499, is hereby waived indefinitely. The contracting officer is able to require government shade evaluation at any point in time going forward on subject contract.**

Initial purchase of the components below shall be submitted to DLA Product Testing Center for evaluation of shade. A "component" in this case means a specific size or type of material from a particular supplier; different sizes or types constitute different components and each size or type from each supplier should be separately sampled and evaluated, except as described in "Swatching for fastener tape" below. Upon receipt of a passing result for each component, there shall be no further requirement for government shade evaluation of that component for the duration of the contract, unless specifically requested by the contracting officer. In the case of failing results with waiver granted, additional testing shall be as directed by the contracting officer. Shade evaluation requirement for these listed components applies for all types and classes of ACU; material that is passed or waived may be used on any type or class of ACU under that contract, as permitted by specification. The Government reserves the right to require testing of individual components at any time. Shade evaluation of every lot of basic material is required for the life of the contract.

Trousers (GL/PD 14-05C):
Tape for FR Identification marker (Type III only) – paragraph 3.5.1.2
Buttons - paragraph 3.5.4

Coats (GL/PD 14-04B):
Slide fasteners – paragraphs 3.5.1.1 (any one length), 3.5.1.2, and 3.7.4.2
Tape for IFF tab cover and FR Identification marker (Type III only) – paragraph 3.5.2
Buttons - paragraph 3.5.8
Loop fastener tape for sleeve pocket – paragraph 3.5.3

Components are subject to 1-stage shade evaluation only.

Component materials packaged as rolls (6 inch pieces cut from rolls) shall be sampled as follows:

Lot size	Sample size
1 to 32 rolls	4 pieces
33 to160 rolls	8 pieces
161 to 320 rolls	10 pieces
321 to 500 rolls	12 pieces
Over 500 rolls	12 pieces + 1 piece per 100 rolls

Component materials packaged as each shall be sampled as follows:

Lot size	Sample size
1 to 5 pieces	1 piece
6 to100 pieces	5 pieces
101 to 1000 pieces	10 pieces
1001 to 10000 pieces	50 pieces
Over 10000 pieces	100 pieces

Swatching for fastener tape:

Preference is for fastener tape to be sampled and submitted through the Supplier rather than the Prime Contractor. Any lot of fastener tape submitted for shade evaluation under a DD1222 must represent only one Prime Contractor. However, fastener tape may be sampled from the original master roll (before slitting) as long as traceability is maintained. Narrower widths of fastener tape cut from the master roll need not be re-submitted for shade testing, but a secondary DD1222 shall be prepared and attached to such cuts reflecting the original DD1222 information.

First Article Testing

This section last updated: 10/02/2014

First Article Testing is required for Coats and Trousers of each Type of permethrin treated ACU item being made under each contract.

(a) The Contractor shall deliver 60 Coats or 60 Trousers (or 60 of each if both are on contract) within 135 calendar days from the date of this contract to the Government at the Permethrin Treatment Facility for first article tests. The shipping documentation shall contain this contract number and the Lot/Item identification. The characteristics that the first article must meet and the testing requirements are specified elsewhere in this contract.

60 coats or 60 trousers (or 60 of each if both are on contract) shall be made by the Contractor and sent to the Permethrin Treatment Facility. From this lot, samples shall be sent for testing as follows:

6 coats or 6 trousers (or 6 of each if both are on contract) size Medium-Regular or larger shall be sent for Government testing to:

USA NSRDEC, NATICK SOLDIER CENTER
15 Kansas Street, Building 5, Whittlesey Bldg
ATTENTION: RDNS-WPW-T (Amy Johnson)
NATICK, MA 01760-5019

Samples sent to the Government shall be tested for Permethrin Application, Bite Protection and Shade conformance as described below.

3 coats or 3 trousers (or 3 of each if both are on contract) shall be tested by the Contractor's Qualified Testing Facility for Permethrin Application at 0 and 20 launderings as described below.

Testing shall be done concurrently by both facilities, and Contractor's Conditionally Qualified Testing Facility shall send results to Government for correlation. Government results shall determine final acceptability of First Article Test. In the event of disagreement between Contractor and Government test results, the Government shall investigate the cause of the disparity.

As described above, testing for the FAT shall consist of the following (paragraphs referenced from GL/PD 14-04B and GL/PD 14-05C):

- Permethrin Application Test (Gas Chromatography test)
  - Requirement as stated in paragraph 3.4.1
  - Method as stated in paragraph 4.5.1
  - Samples will be tested after initial (treated unlaundered sample) and 20 launderings to correlate with Gas Chromatography test as in paragraph 4.5.1
- Bite Protection Test
  - Requirement as stated in paragraph 3.4.2
  - Method as stated in paragraph 4.5.2

    - Samples will be tested after initial (treated unlaundered sample) and after 20 and 50 launderings to correlate with Bite Protection test 4.5.2 and 4.5.2.1
- Shade conformance
    - Shade to match selected permethrin treated standard after treatment

(b) Within 90 calendar days after the Government receives the first article, the Contracting Officer shall notify the Contractor, in writing, of the conditional approval, approval, or disapproval of the first article. The notice of conditional approval or approval shall not relieve the Contractor from complying with all requirements of the specifications and all other terms and conditions of this contract. A notice of conditional approval shall state any further action required of the Contractor. A notice of disapproval shall cite reasons for the disapproval.

(c) If the first article is disapproved, the Contractor, upon Government request, shall submit an additional first article for testing. After each request, the Contractor shall make any necessary changes, modifications, or repairs to the first article or select another first article for testing. All costs related to these tests are to be borne by the Contractor, including any and all costs for additional tests following a disapproval. The Contractor shall furnish any additional first article to the Government under the terms and conditions and within the time specified by the Government. The Government shall act on this first article within the time limit specified in paragraph (b) of this clause. The Government reserves the right to require an equitable adjustment of the contract price for any extension of the delivery schedule or for any additional costs to the Government related to these tests.

(d) If the Contractor fails to deliver any first article on time, or the Contracting Officer disapproves any first article, the Contractor shall be deemed to have failed to make delivery within the meaning of the Default clause of this contract.

(e) Unless otherwise provided in the contract, the Contractor --

> (1) May deliver the approved first article as a part of the contract quantity, provided it meets all contract requirements for acceptance and was not consumed or destroyed in testing; and
>
> (2) Shall remove and dispose of any first article from the Government test facility at the Contractor's expense.

(f) If the Government does not act within the time specified in paragraph (b) or (c) of this clause, the Contracting Officer shall, upon timely written request from the Contractor, equitably adjust under the Changes clause of this contract the delivery or performance dates and/or the contract price, and any other contractual term affected by the delay.

(g) The Contractor is responsible for providing operating and maintenance instructions, spare parts support, and repair of the first article during any first article test.

(h) Before first article approval, the acquisition of materials or components for, or the commencement of production of, the balance of the contract quantity is at the sole risk of the Contractor. Before first article approval, the costs thereof shall not be allocable to this contract for

(1) progress payments, or

(2) termination settlements if the contract is terminated for the convenience of the Government.

(i) The Government may waive the requirement for first article approval test where supplies identical or similar to those called for in the schedule have been previously furnished by the Offeror/Contractor and have been accepted by the Government. The Offeror/Contractor may request a waiver.

(End of Clause)

Alternate I (Jan 1997). As prescribed in 9.308-2(a)(2) and (b)(2), add the following paragraph (j) to the basic clause:

(j) The Contractor shall produce both the first article and the production quantity at the same facility.

VERIFICATION PROGRAM FOR PERMETHRIN TREATMENT

This section last updated: 06.26.2023

Government notification of results

Copies of all test reports (with completed DD1222s) and Certificates of Conformance pertaining to permethrin treatment shall be forwarded to Army and DLA Troop Support at the following addresses:

BDUTeamLabs@dla.mil

or

DLA Troop Support
ATTN: Kristyn Pretcher
FQSE 3A-4168
700 Robbins Ave.
Philadelphia, PA 19111-5092

AND

amy.l.johnson2.civ@mail.mil

or

USA NSRDEC, NATICK SOLDIER CENTER
15 Kansas Street, Building 5, Whittlesey Bldg
ATTENTION: RDNS-WPW-T (Amy Johnson)
NATICK, MA 01760-5019

(Electronic notification is preferred)

Sending samples in for government testing of permethrin treated samples

When required, random samples shall be pulled by the Government QAR and sent with completed form DD 1222 to U. S. Army Natick Soldier Research, Development and Engineering Center (NSRDEC), Textile Materials Evaluation Team (TMET) at:

USA NSRDEC, NATICK SOLDIER CENTER
15 Kansas Street, Building 5, Whittlesey Bldg
ATTENTION: RDNS-WPW-T (Amy Johnson)
NATICK, MA 01760-5019

And email completed DD1222 to:
amy.l.johnson2.civ@mail.mil

Contractor verification of permethrin treatment

Prime Contractor shall ensure that each lot is tested, at a facility approved by the Government, for conformance of the Permethrin Application to contract requirements. A Certificate of Conformance showing test results is required, regardless of whether the lot is tested by the government. Certificate of Conformance and accompanying Contractor test report shall be presented with each lot at the time of final inspection and Government acceptance.

Testing performed shall be as described in GL/PD 14-04B or GL/PD 14-05C (current contractual version is assumed throughout this document) and contract provisions for verification of permethrin treatment. Gas Chromatography test (paragraph 4.5.1 in both documents) shall be performed at 0X launderings only for each lot of finished garments. Bite protection testing is not required at this level.

Government verification of permethrin treatment

General

All testing shall be performed in conformance with the requirements stated in GL/PD 14-04B and GL/PD 14-05C.

Unless otherwise directed, at every stage, sampling from each lot to be Government tested shall be as stated in GL/PD 14-04B and GL/PD 14-05C, paragraph 4.5.1, section D.1. It is in Contractor's best interest to submit samples for Government testing at the same time as beginning independent testing, in order to minimize delays. Test data from Contractor's Qualified Testing Facility shall be forwarded to NSRDEC Textile Materials Evaluation Team and DLA Troop Support as soon as it becomes available. Qualified Testing Facility test data shall be submitted for every lot regardless of whether government testing is required.

If at any point the test results indicate inconsistency in the process or failure to meet requirements, the criteria for verification may be revised to address the need of corrective action at that time. When necessary, DLA Troop Support contracting personnel will advise.

Any change in base material or treatment process (whether initiated by the Government or the Contractor) necessitates new FAT and verification testing as determined by the Contracting Officer.

Verification program requirement for contracts with multiple ACU types

This program of government verification (to include FAT, first 5 treated lot verification and follow-up verification) applies to contract production of each type of Army Uniform as follows: Coats or Trousers of the same Type shall be considered as similar items for the purposes of FAT testing when completed as a full set (one Coat & one Trouser).

Coats or Trousers of the same Type shall NOT be considered as similar items for the purposes for verification testing, the first 5 treated lot verification and 1 in 10 lot verification, even if items are on the same contract.
Unisex Coats or Female Coats of the same Type shall be considered as similar items for the purposes for the first 5 treated lot verification and 1 in 10 lot verification, if items are on the same contract.
However, Coats or Trousers of different Types require separate verification testing, to include FAT, first 5 treated lot verification and follow-up verification.

Laboratory Qualification Process

Contractor testing for Active Ingredient (AI) content shall be conducted at a laboratory which has been qualified by the Government and listed in section 52.246-9032 of the contract.
Government determination of the proposed laboratory's ability to perform the testing must be completed and the proposed laboratory granted conditional qualification before First Article Test may proceed.
The Combat Capabilities Development Command - Soldier Center (DECCOM SC) Textile Materials Evaluation Team (TMET) will send (5) 3-inch diameter pre-cut samples of cloth with known properties to Contractor to be tested for AI content. Results from testing this material shall be submitted to DEVCOM SC TMET along with end item results in order to establish correlation of testing methods.
The laboratory may be considered a Qualified Testing Facility once DEVCOM SC TMET determines through correlation testing that the laboratory is acceptable.
If at any time over the course of the contract the Government determines that correlation testing no long supports Qualification of the laboratory, Qualification may be revoked. When necessary, DLA Troop Support contracting personnel will advise.

First Article Testing (FAT)

Pre-treated Fabric

The fabric supplier shall submit three (3) full width pieces from a minimum of a 5000 yard production lot of vector treated fabric. Each piece shall be not less than one (1) yard in length and be cut randomly from different production rolls. FAT will include AI Content at 0, 1, 20 and 50 laundering cycles and %Bite Protection Testing at 1, 20 and 50 laundering cycles. Each piece will be considered one sample unit for testing and laundering. The results will be compared to the requirements for AI content and bite protection listed in the EPA Registration, MIL-PRF-32659 and Purchase Description.

Post-treated Garment

The garment treater shall submit three (3) coats and three (3) trousers in size large-regular or bigger. Production lots for each garment type shall not exceed 1500 garments. First Article Testing will include Active Ingredient Content at 0, 1, 20 and 50 laundering cycles and %Bite Protection Testing at 1, 20 and 50 laundering cycles. One (1) coat and (1) trouser will be considered one (1) sample unit for laundering, however each garment will be considered separate

sample units for AI Content testing. The results will be compared to the requirements for AI content and bite protection listed in the EPA Registration, MIL-PRF-32659 and Purchase Description.
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Samples shall be sent to:

Combat Capabilities Development Command – Soldier Center
15 General Greene Ave, Building 5, Whittlesey Bldg
ATTN: FCDD-SCP-MT (IRT Lab)
Natick, MA 01760-5019

Testing shall be conducted concurrently by both facilities, and the Contractor's Conditionally Qualified Testing Facility shall send results to the Government for correlation. Government results shall determine final acceptability of the test. In the event of disagreement between Contractor testing and Government test results, the Government shall investigate the cause of the disparity.

As described above, testing for the FAT shall consist of the following (paragraphs referenced from MIL-PRF-32659):

- AI Content (Gas Chromatography/Mass Spectrometry test)
  - Requirement as stated in paragraph the item specification
  - Method as stated in MIL-PRF-32659, 4.7.1
  - Samples will be tested initially (treated unlaundered sample) and after 1, 20 and 50 launderings.
- %Bite Protection Test
  - Requirement as stated in the item specification.
  - Method as stated in MIL-PRF-32659, 4.7.2
  - Samples will be tested after 1, 20 and 50 launderings.
- Shade conformance
  - Shade to match selected standard after treatment

(b) Within 45 days after the Government receives the first article the laundered swatches (pre-treated fabric or garment samples) will be sent to USDA for % Bite protection testing. Within 180 calendar days of the USDA receiving the laundered swatches (pre-treated fabric or garment samples) the testing will be completed and results will be compiled into a final report, the Contracting Officer shall notify the Contractor, in writing, of the conditional approval, approval, or disapproval of the first article. The notice of conditional approval or approval shall not relieve the Contractor from complying with all requirements of the specifications and all other terms and conditions of this contract. A notice of conditional approval shall state any further action required of the Contractor. A notice of disapproval shall cite reasons for the disapproval. If for some reason the % Bite Protection testing cannot be completed in 180 days, the contractor will be notified of a delay in test result.
(c) If the first article is disapproved, the Contractor, upon Government request, shall submit an additional first article for testing. After each request, the Contractor shall make any necessary changes, modifications, or repairs to the first article or select another first article for testing. All costs related to these re-tests are to be borne by the Contractor, including any and all costs for additional tests following disapproval. The Contractor shall furnish any additional first article to the Government under the terms

and conditions and within the time specified by the Government. The Government shall act on this first article within the time limit specified in paragraph (b) of this clause. The Government reserves the right to require an equitable adjustment of the contract price for any extension of the delivery schedule or for any additional costs to the Government related to these tests.

(d) If the Contractor fails to deliver any first article on time, or the Contracting Officer disapproves any first article, the Contractor shall be deemed to have failed to make delivery within the meaning of the Default clause of this contract.

(e) Unless otherwise provided in the contract, the Contractor:

> (1) May deliver the approved first article as a part of the contract quantity, provided it meets all contract requirements for acceptance and was not consumed or destroyed in testing; and
>
> (2) Shall remove and dispose of any first article from the Government test facility at the Contractor's expense.

(f) If the Government does not act within the time specified in paragraph (b) or (c) of this clause, the Contracting Officer shall, upon timely written request from the Contractor, equitably adjust under the Changes clause of this contract the delivery or performance dates and/or the contract price, and any other contractual term affected by the delay.

(g) The Contractor is responsible for providing operating and maintenance instructions, spare parts support, and repair of the first article during any first article test.

(h) Before first article approval, the acquisition of materials or components for, or the commencement of production of, the balance of the contract quantity is at the sole risk of the Contractor. Before first article approval, the costs thereof shall not be allocable to this contract for:

(1) progress payments, or

(2) termination settlements if the contract is terminated for the convenience of the Government.

(i) The Government may waive the requirement for first article approval test where supplies identical or similar to those called for in the schedule have been previously furnished by the Offeror/Contractor and have been accepted by the Government. The Offeror/Contractor may request a waiver.

(End of Clause)

Alternate I (Jan 1997). As prescribed in 9.308-2(a)(2) and (b)(2), add the following paragraph (j) to the basic clause:

(j) The Contractor shall produce both the first article and the production quantity at the same facility.

Initial Verification Testing

The first five treated lots shall be tested by both DEVCOM SC TMET and Contractor's Qualified Testing Facility for AI Content only at 0X launderings. The Government shall test the first five (5) lots of pre-treated fabric or post-treated garments. This requirement shall be considered satisfied when passing Government results for five consecutive lots are received from DEVCOM SC TMET. The Contractor is not free to ship subsequent lots under "Follow-up verification" until passing results for five consecutive lots have been confirmed by DLA and communicated to Contractor.

Lots for all verification (initial or follow-up) testing of pre-treated fabric shall consist of a minimum of 5,000 yards and no more than 12,500 yards.

Lots for all verification (initial or follow-up) verification testing of post-treated garments shall consist of a minimum of 1,000 units and no more than 5,000 units.

Follow-up Verification Testing

Once five consecutive fabric lots have been passed by Government testing, samples shall be sent to DEVCOM TMET for verification testing as follows: one lot for every ten lots, randomly selected by the Government QAR. Lots to be sampled for follow-up verification testing shall be selected at random by the Government QAR such that out of each set of 10 lots, the QAR shall randomly select one lot to be sampled for Government verification testing (i.e., 1 random lot out of lots 1-10, 1 random lot out of lots 11-20, etc.). Samples shall be tested by Government for AI Application only at 0X launderings. The Contractor is not required to wait for Government results before shipping or continuing production while under follow-up verification except for the lot that requires testing. (For example, if lot 10 is submitted for Government verification testing, then lot 10 may not ship until positive test results are received, while other lots do not need to be held if applicable Contractor testing results are passing.)

In the event that the requirement for first 5 lot verification is waived via contract modification, follow-up Government verification testing of 1 in 10 lots begins at the start of production.

Percent Bite Protection testing and multiple wash AI Content testing are not necessary once the First Article has passed. However, the Government may elect to test treated items at random at any time.

When required, random samples shall be pulled by the Government QAR and sent with completed form DD 1222 to Combat Capabilities Development Command – Soldier Center (DEVCOM SC TMET) at:

Combat Capabilities Development Command – Soldier Center
15 General Greene Ave, Building 5, Whittlesey Bldg
ATTN: FCDD-SCP-MT (IRT Lab)
Natick, MA 01760-5019

LOT FORMATION AND TESTING FOR END ITEMS AND COMPONENTS

This section last updated: 09/07/23

The following definitions and/or instructions derived from *DLA TROOP SUPPORT C&T AQAR Quality Systems Requirements* are applicable for production and presentation of ACU Coats and Trousers and components thereof.

Lot Formation and Testing for End Items

A. A "Manufacturing Lot" is a completed homogenous production run of a fixed quantity of manufactured garments assembled into an identifiable stationary lot from which samples are randomly selected by the Government Quality Assurance Representative (QAR) in accordance with contract ANSI AQL requirements for the purpose of Government inspection and acceptance. Lots shall be numbered consecutively over the course of a contract and lot numbers shall not be repeated within a contract (such as between delivery orders or when using a subcontractor.)

   i. In the case of garments to be chemically treated after manufacture, samples shall be randomly selected by a Government QAR in accordance with contract ANSI AQL requirements for inspection of acceptable manufacturing quality before being forwarded to the treatment facility. After treatment, samples shall again be randomly selected by a Government QAR in accordance with contract ANSI AQL requirements for the purpose of final Government inspection and acceptance.

   ii. In the case of pre-treated fabric prior to being manufactured, samples shall be randomly selected by a Government QAR in accordance with contract ANSI AQL requirements for inspection of acceptable quality before being forwarded to the treatment facility. After treatment and manufacturing, samples shall again be randomly selected by a Government QAR in accordance with contract ANSI AQL requirements for the purpose of final Government inspection and acceptance.

B. A "Treatment Lot" is a completed homogenous production run of a fixed quantity of garments or yardage when pre-treated that are treated under the same conditions at the same time.

   Samples for all Government verification testing or inspection shall be pulled by the Government QAR from the completed Manufacturing Lot (or a partial quantity of the completed Manufacturing Lot, as described in 2.B(ii) below) which has been assembled for final presentation to the Government.

*Testing for the first 5 production lots shall not be combined into a Treatment Lot.

Except as noted below, the "Manufacturing Lot" size may differ from the "Treatment Lot" size. Test results and full traceability must be maintained in association with each lot.

i. Multiple complete Manufacturing (Garments or Fabric) Lots may be combined into a single Treatment Lot as long as the materials being treated have the same print, fabric type, and garment style.

   When multiple Manufacturing Lots are combined as one Treatment Lot, each Manufacturing Lot shall be independently counted for verification testing requirements (whether first 5 lot verification or 1 in 10 lot verification); samples for Government verification testing shall be selected from the final treated quantity as presented for each Manufacturing Lot requiring verification testing.
   If a Treatment Lot includes 1000 garments from Company A's lot 10 and 900 garments from Company B's lot 12, and only Company A's lot 10 is subject to Government verification testing, samples for that Government verification testing shall be selected by the QAR from the 1000 garments presented by Company A for acceptance.

   If a Treatment Lot includes 4000 yards from Company A's lot 10 and 1000 yards from Company B's lot 12, and only Company A's lot 10 is subject to Government verification testing, samples for that Government verification testing shall be selected by the QAR from the 4000 yards presented by Company A for acceptance.

Contractor testing of a garment Treatment Lot consisting of multiple Manufacturing Lots shall sample from the entire quantity; three garments from the larger Manufacturing Lot and two garments from the smaller Manufacturing Lot are tested. In this case, a single test report shall be generated for the Treatment Lot which clearly indicates all Manufacturing Lots included in the test and, also identifies which lots are represented by each sample result. If more than two lots are combined, then the 2 garments from each of the smaller lots shall be tested.
Contractor testing of a fabric Treatment Lot consisting of multiple Manufacturing Lots shall sample from the entire quantity; three pieces from the larger Manufacturing Lot and two pieces from the smaller Manufacturing Lot are tested. In this case, a single test report shall be generated for the Treatment Lot which clearly indicates all Manufacturing Lots included in the test and, also identifies which lots are represented by each sample result. If more than two lots are combined, then the 2 pieces from each of the smaller lots shall be tested.
**For Government and Contractor testing one additional garment/piece, from each lot, may be tested if one of the original garments/pieces fails to meet the requirement. If there is more than one failing garment/piece from the larger lot and/or more than one failing garment/piece from the smaller lot then both lots shall be considered failing.

ii. A single Manufacturing Lot may be treated in different Treatment Lots.
   While the splitting of Manufacturing Lots should be minimized as much as possible, when a single Manufacturing Lot is too large to be treated as one Treatment Lot, it may be treated in more than one Treatment Lot. In this event, each Treatment Lot is counted for Government verification purposes. For example, if a Manufacturing Lot is

treated in two different Treatment Lots, that shall be counted as two different Treatment Lots for verification purposes.

If the garment Treatment Lots are not of equal size, and verification testing is required, the largest Treatment Lot within the Manufacturing Lot shall be used for Government verification testing. For example, if a Manufacturing Lot of 3,500 is split into two Treatment Lots of 2,000 and 1,500, then the Treatment Lot of 2,000 shall be used for Government verification testing. The contractor shall provide test results for each Treatment Lot.

If the fabric Treatment Lots are not of equal size, and verification testing is required, the largest Treatment Lot within the Manufacturing Lot shall be used for Government verification testing. For example, if a Manufacturing Lot of 12,500 yards is split into two Treatment Lots of 10,000 and 2,500 yards, then the Treatment Lot of 10,000 yards shall be used for Government verification testing. The contractor shall provide test results for each Treatment Lot.
A full set of samples shall be pulled tested by the Contractors qualified laboratory for each Treatment Lot. A single test report shall be generated for the Manufacturing Lot which shows all results for all applicable Treatment Lots.

iii. An AI Content testing failure (Contractor testing or Government testing) found on either a Manufacturing Lot or a Treatment Lot shall be cause for holding and re-testing related Manufacturing Lots (all included as part of the same Treatment Lot) or Treatment Lots (all that comprise the Manufacturing Lot), at the discretion of the Contracting Officer.
If a failing Lot is over the min max requirement, it must be reworked to lower the AI Content levels or destroyed if that AI cannot be lowered to required levels.

iv. For verification testing of the first five treated lots, Manufacturing Lot and Treatment Lot shall be the same and shall be a quantity of at least 1001 garments or 5001 yards.

v. If Manufacturing Lot and Treatment Lot quantities are not the same, the DD1222 for government verification testing submission shall reference the lowest manufacturing lot number in box 7 and shall describe all applicable lots and quantities in box 16.

C. Testing for post-manufacture AI Content is considered end item testing. Contractor testing in accordance with contract requirements shall be completed and reported for each Manufacturing Lot. Samples for Contractor testing shall be pulled from the same finished quantity as Government verification test samples would be pulled from (see section (B) above), even if Government verification testing is not required. All testing data from end item AI Content testing shall be recorded on a lab report which is signed by the testing lab and includes all results from each sample tested; this report shall be provided to the Government QAR and forwarded to DLA Troop Support and DEVCOM SC via a DD1222 form. Please note that only ONE DD1222 needs to be sent to DLA Troop Support and DEVCOM SC per Treatment Lot. Follow the instructions above for how to list the manufacturing lots in a treatment lot on the DD1222.

i. If multiple Manufacturing Lots are included in a single Treatment Lot, Contractor testing shall be completed and reported for each Manufacturing Lot, with records maintained regarding which Manufacturing Lots were treated together.

ii. If a single Manufacturing Lot is comprised of multiple Treatment Lots, separate Contractor testing shall be completed and reported for each quantity of the Manufacturing Lot treated in a separate Treatment Lot, with the test report showing all results applicable to that Manufacturing Lot.

D. Prime Contractors are required to maintain applicable records for each lot of their own production and to be able to produce records representing the treatment process for each lot of their subcontractors. Complete traceability shall be maintained for two years following delivery of the final lot of supplies.

E. Garments and pre-treated fabric shall be individually stamped with their Manufacturing Lot number.

F. All end item test reports (including all chemical and physical tests as required by the contract) shall be presented to the Government QAR at the time of final inspection for Government acceptance.

Lot Formation and Testing for Components

A. A "Component Lot" is a completed homogenous production run of a fixed quantity of items from which the required testing samples are randomly selected. Each component lot shall be tested for conformance to all tests required in the contract.

B. Deviation from DLA TROOP SUPPORT C&T AQAR Part 1: Regardless of cost, components other than cloth shall be presented with a Certificate of Compliance (CoC) as stated below in Section C, but Source Sampling or Government Acceptance Testing may be implemented in lieu of CoC at any time at the discretion of the Government. Shade testing of components as stated in the contract is Government Acceptance Testing and is not covered under CoC.

C. Unless otherwise directed by the Government, components other than cloth shall be presented to the Prime Contractor with a CoC from a laboratory listed in the contract as being qualified to perform the required testing. The CoC shall certify that the material in that component lot meets all requirements as stated in the contract. All CoCs shall be supported by test reports to ascertain their validity. The Prime Contractor must maintain and present all CoC records upon government request.

Excess Garments

A. Garments that cannot ship with the original lot it was treated with can be combined and shipped with garments from another lot under the following circumstances.

The garments from previous lots that are being added to another lot must:

- Be from the same contract.
- The contract must have open CLINs for the garments being added.
- Be the same exact item and material. Do not mix female and unisex.

Production Samples

All production samples being sent to DLA Troop Support shall be randomly pulled by the QAR and accompanied by a DD1222. This is for any samples requested by DLA or samples being sent by the Prime.

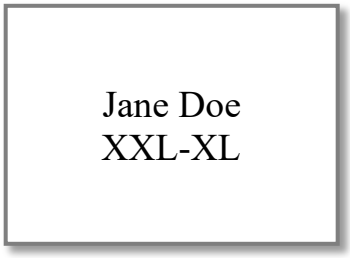
LABELING INFORMATION FOR SPECIAL MEASUREMENT ORDERS

This section last updated: 10/02/2014

The size label for Special Measurement orders shall conform to the requirements stated in paragraph 3.8.1 of the end item specification (GL/PD 14-04B or GL/PD 14-05C), except that the label text shall read as follows:

[NAME OF RECIPIENT] (located in box 1a on DD-358 or on the EMALL spreadsheet)
[SPECIAL MEASUREMENT SIZE] (as provided by DLA Troop Support when order is placed)

Sample:



ACCEPTABLE QUALITY LIMITS FOR END ITEM INSPECTION

This section last updated: 1/1/2014

ANSI/ASQC Z1.4 Acceptable Quality Limits for End Item Inspection shall be as follows:

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

PACKAGING

This section last updated: 6.8.2022

Trousers:

30 Trousers of one size only shall be packed in a fiberboard shipping container, not to exceed 24x16x16 in size, conforming to ASTM-D-5118, Type CF, Style RSC, Grade 275 or ECT 44, variety SW, Class domestic, with a double wall liner. Each container shall have the contents completely covered on the top and bottom with a sheet of commercial grade kraft paper. Any commercial closure method cited in ASTM-D-1974 is acceptable except stapling.

Each pair of Trousers, with inseams meeting, shall be folded from the leg bottom up toward the waistband. Before folding the Regular and Long size trousers, the leg bottoms may first be folded to accommodate the box size. For the larger sizes, it may also be necessary to adjust the seat area to accommodate the box size.

Packaging for all items including special measurements shall be appropriately sized for the contents within and sent thru proper traceable means.

Barcoding

The UPC code must be placed on all shipping cartons on which the NSN appears.

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

252.211-7006 - Radio Frequency Identification (RFI) required

Marking

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

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.

Palletization

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.

RFID LABEL

******RFID labels are applicable to ACU Type I only. This section does not apply to FRACU Type III.*

An RFID inlay shall be added to the barcode label attached to each item. Where the use of self-adhesive barcode labels is authorized, the RFID inlay may be added to the self-adhesive label in lieu of a paper label. All other contract barcode requirements still apply.

The RFID inlay should be passive Gen2 with a frequency range between 860 and 960 MHz. The RFID antenna should be Avery/Dennison AD222 or comparable with ISO/IEC 18000-C EPC global C1G2 Protocol and an EPC memory allocation containing a 96 bit EPC Number. The data linking the EPC number to the NSN and quantity unit pack must be exportable to VIM/ASAP. The bar code of the EPC Number must be printed at the bottom of the tag along with the human readable version below the bar code.

In addition to defects applicable to the paper tag and barcoding element, the RFID tag shall be examined for the defects listed below:
RFID Inlay omitted
RFID Inlay not secure
RFID Inlay not readable with RFID scanner RFID Inlay or configuration not as specified
The manual document "Item-Level Passive RFID Technology Manufacturer's Information Guide" provides guidance on RFID implementation and is available from the contracting officer.

Inspection

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 (exterior) & Unit Pack,	Omitted; incorrect; illegible, of improper size, location, sequence 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 Dimensions	Length, width or height exceeds specified maximum requirement.
Palletization	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.