

INCH-POUND

MIL-C-83429B  
INTERIM AMENDMENT 1 (GL)  
17 March 1992

MILITARY SPECIFICATION

CLOTH, PLAIN AND BASKET WEAVE, ARAMID

This interim amendment is approved for use within the Department of the Army, with MIL-C-83429B dated 26 September 1990.

PAGE 1

1.2, under "Class 6": Add the following:

"Class 7 - Desert camouflage printed (3 color), aramid blend"

PAGE 2

2.1.2, under "2-1-1516B - Woodland Pattern - 60 inches": Add the following:

"2-1-2240 - 3 Color Desert Pattern 48 & 60 inch pattern"

PAGE 3

2.2, under "Chromatic Transference Scale": Add the following:

"AATOC Method 16 - Colorfastness to Light: Option E - Water-Cooled Xenon-Arc Lamp, Continuous Light"

PAGE 4

3.3.1.1: Delete and substitute the following:

"3.3.1.1 Conductive fiber. An approved conductive fiber (see 6.6) may be added to the aramid fiber blend to assist in meeting the electrostatic decay requirement specified in 3.8.1."

3.4.2, at end of paragraph: Add "Resin bonded pigments are not permitted."

MIL-C-83429B  
INTERIM AMENDMENT 1 (GL)

Add the following new paragraph:

"3.4.2.1 Type II, class 7. The cloth shall be colored to a ground shade either matching or approximating Light Tan 492 and subsequently overprinted with the applicable desert camouflage colors. When the ground shade is colored to match the Light Tan 492, the Desert Camouflage pattern shall be obtained by roller or automatic screen printing using two rollers or screens, as appropriate for the Light Brown 493 and Light Khaki 494 areas of the pattern. If the ground shade is colored to approximate the Light Tan 492 ground shade, three rollers or screens shall be used to match the required pattern. Resin bonded pigments are not permitted."

PAGE 5

3.4.6: Delete and substitute the following:

"3.4.6 Colorfastness, type II, classes 5 and 7. The finished cloth shall show fastness to laundering (after 3 cycles), light (after 6 standard fading hours when carbon arc is used and after 20 kilojoules per square meter when xenon is used) and perspiration equal to or better than the standard sample or equal to or better than a rating of "good" for each of the pattern areas. The finished cloth shall show fastness to crocking equal to or better than the standard sample or shall have an AATCC Chromatic Transference Scale rating of not lower than 3.5 for all the pattern areas, except Black 357 (type II, class 5) which shall have an AATCC Chromatic Transference Scale rating of not lower than 1.5. Testing shall be as specified in 4.4.3."

3.5: Delete and substitute the following:

"3.5 Pattern execution, classes 5 and 7. The pattern shall match the standard sample with respect to design, colors and registration of the respective areas. Each pattern area shall show solid coverage; skitteriness exceeding that shown by the standard sample in any of the printed areas will not be acceptable. The pattern repeat of the class 5 Woodland Camouflage printed finished cloth shall be 27.25 +1.25 -2.5 inches. The pattern repeat of the class 7, 3 color Desert Camouflage printed finished cloth shall be 16.75 +1.25 -1.75 inches. When the standard sample is not available for pattern execution, a pattern drawing shall be provided, and the pattern on the finished cloth shall match that of the drawing (see 2.1.2 and 6.2)."

PAGE 6

Table I, across from "800, 820, 840 and 860" under "Black 357 Max.": Delete "20" in all four locations and substitute "25" in all four locations.

3.6.1 Spectral reflectance, Sage Green 1590 and Tan 380. Renumber as "3.6.2".

MIL-C-83429B  
INTERIM AMENDMENT 1 (GL)

Add the following new paragraph and table:

"3.6.3 Spectral reflectance, type II, class 7. The spectral reflectance of each color for the 3 color Desert Camouflage printed finished cloth shall conform to the requirements specified in table IIA, when tested as specified in 4.4.3.

TABLE IIA. Spectral reflectance requirements, type II, class 7

Wavelengths nanometers	Reflectance values (percent)					
	Light Tan 492		Light Brown 493		Light Khaki 494	
	(min)	(max)	(min)	(max)	(min)	(max)
700	38	65	19	53	25	62
720	38	66	20	58	25	64
740	39	67	20	62	25	66
760	40	67	21	64	26	67
780	41	67	21	65	27	67
800	43	67	22	65	28	67
820	45	67	23	66	30	68
840	48	68	24	67	33	68
860	50	70	25	68	36	69

PAGE 7

In table III, under "Type II": Delete "Class 5" and substitute "Classes 5 and 7".

Across from "Tearing strength, lbs., Filling", under "Type II, Class 5": Delete "7" and substitute "6".

PAGE 11

4.4.2.1.1, lines 4, 5, 6, 10, 12, 14 and 16: Delete "class 5" and substitute "classes 5 and 7"

Add the following defect:

"Pattern repeat less than 15.00 inches or more than 18.00 inches (class 7)".

4.4.2.3, line 5: Delete "class 5" and substitute "classes 5 and 7".

PAGE 12

In table IV, under "Colorfastness to:", after "Type II": Delete "class 5" and substitute "classes 5 and 7".

MIL-C-83429B  
INTERIM AMENDMENT 1 (GL)

Under "(Type II class 5)", across from "Light", in Test method column, after "5660 4/": Add "or 4.5.5"

Under "Flame resistance", after "laundering": Delete "(class 5)" and substitute "(classes 5 and 7)".

PAGE 13

4.5.1, line 4, after "Tan 380": Insert "and 3 Color Desert Camouflage colors".

PAGE 14

4.5.1 cont'd, line 12, after "Tan 380": Add "and for the 3 Color Desert Camouflage colors, Light Tan 492, Light Brown 493 and Light Khaki 494".

Line 16, after "Woodland Camouflage": Add "and 3 Color Desert Camouflage".

Add the following new paragraph:

"4.5.5 Colorfastness to light (Xenon lamp exposure). The following Xenon colorfastness to light test method may be used as an alternative to method 5660 of FED-STD-191. The test procedure shall be in accordance with AATOC Method 16 Option E (Water cooled, Continuous light cycle) except that the following deviations shall apply:

a. The test apparatus shall be an Atlas ci35 or ci65 Fadeometer with either two or three-tiered (preferably a three-tiered) inclined specimen rack. The apparatus shall be equipped with an automatic light monitor and shall be capable of automatically controlling irradiance, temperature, and humidity. The apparatus shall be maintained in accordance with the manufacturer's recommendations.

b. The irradiance level shall be  $0.55 \pm 0.01$  watt/square meter/nanometer ( $\text{w/m}^2/\text{nm}$ ) bandpass at 340 nanometers.

c. The glass filter combination shall be a borosilicate Type "S" inner and outer filter.

d. The relative humidity shall be  $50 \pm 5$  percent during the entire cycle.

e. The equipment shall be operated to maintain the following tolerances:

Black Panel	_____	$63 \pm 2^{\circ}\text{C}$
Conditioning water	_____	$50 \pm 4^{\circ}\text{C}$
Dry Bulb	_____	$45 \pm 2^{\circ}\text{C}$
Wet Bulb depression	$\frac{1}{\text{_____}}$	$10^{\circ}\text{C}$

MIL-C-83429B  
INTERIM AMENDMENT 1 (GL)

1/ As a guide only; adjust to achieve required relative humidity (see d. above).

f. The test specimen and the AATCC Blue Wool Lightfastness Standard shall be mounted on white cardboard. When mounted test specimen are masked, use test mask approaching zero light transmittance.

g. The test shall be continued until the energy exposure is equal to 20 kilojoules per square meter.

NOTE: Monitoring of the dry bulb temperature, wet bulb depression, irradiance, and black panel temperature is recommended through the use of chart recorders."

PAGE 16

6.6.1, at end of paragraph: Add "It should be noted that low blend levels of conductive fiber alone (such as 1 percent by weight) may not be sufficient to meet the electrostatic decay requirements of this specification."

6.8, line 2, after "Scan,": Insert "Milton Roy Match Scan 2,".

Line 3, after "D54P-IR,": Insert "Applied Color Systems Spectro Sensor I and II and CS-5,".

6.9, line 4: Delete "National Bureau of Standards" and substitute "National Institute of Standards and Technology".

Preparing activity:

Army - GL

(Project 8305-A458)