HEADQUARTERS PHILIPPINE ARMY

OFFICE OF THE ARMY CHIEF QUARTERMASTER

Fort Andres Bonifacio, Metro Manila

PA SPECIFICATION

QM SPEC NR IC-21PATSPS

Interim

PHILIPPINE ARMY TACTICAL SHIRT, POLYESTER, SPANDEX

1. SCOPE

- 1.1. Scope This specification covers one type of Tactical Shirt for use of military personnel of the Philippine Army.
- 1.2. Grade The finished Tactical Shirt shall conform to the quality and grade of product prescribed by this specification.
- 1.3. Sizes Sizes and measurements of the finished Tactical Shirt are specified in Annex A.

2. REQUIREMENTS

2.1. First Article - Two (2) samples of the finished Tactical Shirt shall be submitted to the Office of the Army Quartermaster and shall be subjected to first article inspection in accordance with para 3.1.

2.2. Materials

2.2.1. Collar and Sleeves

2.2.1.1. The material for the collar and sleeves shall be blend of $85\% \pm 5$ cotton and $15\% \pm 5$ polyester fabric with the following construction requirements:

2.2.1.1.1. Pattern – The basic material shall be printed with Philippine Army Pattern (PHILARPAT) design as shown in the attached illustrations (Figure 1 - 5). The pattern shall be characterized by the natural geometric shapes using color of dark green (Figure 5); black (Figure 4); light green (Figure 3); and beige (Figure 2) color combinations with beige as the base color of the fabric. One (1) complete pattern shall have four (4) Philippine Army logos as shown in the attached illustration. The size of the Philippine Army logo is 1.3 ± 0.1 cm in height and 1.1 ± 0.1 cm in width (Figure 6). The scale of the complete pattern shall be 76.2 ± 2.0 cm in length and 76.2 ± 2.0 cm in width. The pattern shall continuously repeat along the length and the width of the fabric.



Page 1 of 9
Honor. Patriotism. Duty.

9/

OM SPEC NR IG-21PATSPS

2.2.1.2. Physical Requirements

Type of Weave - Twill with ripstop design

Ripstop Design, cm

Length - 0.6 ± 0.1 Width - 0.6 ± 0.1

Thread Count/2.54 cm:

Warp - 130 (minimum) Filling - 70 (minimum)

Yarn Size, Denier (Fine)

Warp - 160 (minimum) Filling - 160 (minimum)

Yarn Size, Denier (Coarse)

Warp - 600 (minimum) Filling - 750 (minimum)

Weight, g/m² - 200 (maximum)

Thickness, mm - 0.30 - 0.35

Breaking Strength, kg (Grab Method)

Warp - 70 (minimum) Filling - 35 (minimum)

Tearing Strength, kg (Tongue Method)

Warp - 4.5 (minimum) Filling - 4.5 (minimum)

Flex Abrasion Resistance (Nr of cycles until rupture)

Warp - 9,000 (minimum) Filling - 9,000 (minimum)

Dimensional Change, %

Warp - 3 (maximum) Filling - 3 (maximum)

Colorfastness AATCC Gray Scale Rating

Change in Color Staining
Laundering Grade 4 (min) Grade 4 (min)
Perspiration Grade 4 (min) Grade 4 (min)

Color Quality

Color Difference - 2 (maximum)

Page 2 of 9
Honor. Patriotism. Duty.







QM SPEC NR IC-21PATSPS

0 7 AUG 2022

2.2.1.3. Cloth Finish - The finished cloth shall be free from runs and shall be clean with all spots and stains completely removed.

2.2.2. Body

2.2.2.1. Front and Back Part - Shall be $80\% \pm 5$ polyester fabric and $20\% \pm 5$ Spandex, Olive Drab with design and shall conform to the following requirements:

Thread Count/2.54 cm:

Wales - - - 40 - 50

Courses - - - 60 - 70

Thickness, mm - - - 0.55 - 0.60

Weight, g/m²: - - - 185 (maximum)

Bursting Strength, kg/cm² - - 8 (minimum)

Type of Knit: - - - Plain

Color Quality (Color Difference)

Spectrophotometric Method: - - 1.5 (maximum)

Dimensional Change, % - - + \pm 2 % (max)

Colorfastness Change in Color Staining
Laundering, rating - - - - - Grade 4 (min)
Perspiration, rating - - - - - Grade 4 (min)
Grade 4 (min)

- 2.2.3. Thread The sewing thread shall be made of nylon or polyester yarns, olive drab, 2 ply (minimum) with a minimum breaking strength of 1 kg.
- 2.2.4. Zipper The closure for the front shall be made of nylon zipper No. 4.
- 2.2.5. Cloth Finish The finished cloth shall be free from runs and shall be clean with all spots and stains completely removed.

2.3. Construction

2.3.1. Cutting – The Tactical Shirt shall be cut strictly in accordance with the design as illustrated in Figures 1,2 & 3.



Page 3 of 9 Honor. Patriotism. Duty.





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PA SPECIFICATION

QM SPEC NR IC-21PATSPS

7 AUG 2022.
Interim

- 2.3.2. Flap Sleeve Pocket The sleeve pockets flap shall be one piece cut from the material specified in para 2.2.1.1 of double thickness, set and sewed with double rows of stitching to the correct form and size as illustrated. The sleeve pocket flap shall have a finished depth of 4.5 ± 0.3 cm on both inner and outer edge, tapered on both sides as illustrated to form a depth of 6.0 ± 0.3 cm with a width corresponding to the width of the sleeve pocket. The front portion of the sleeve pocket flap shall be provided with olive drab Velcro tape (loop), 4.5 ± 0.3 cm wide and 9.5 ± 0.5 cm long, sewed along the bottom edge of the flap. The back portion of the sleeve pocket flap shall be provided with olive drab Velcro tape (hook), 2.5 ± 0.2 cm wide and 9.5 ± 0.5 cm long. It shall be sewed 1.0 ± 0.2 cm above the top edge of the sleeve pocket.
- 2.3.3. Pocket, Sleeve $\dot{-}$ The sleeve pocket shall be one piece cut from the material specified in para 2.2.1.1 and creased in with an edge-turning machine to ensure uniformity of size and shape. There shall have two (2) sleeve pockets set and sewed in diagonal position with double rows of stitching. The dimensions of sleeve pocket shall be in accordance with the attached Table of Finished Sizes and Measurement (Table I). It shall be provided with olive drab Velcro tape (loop), 9.5 ± 0.2 cm wide and 14.2 ± 0.5 cm long for attachment of patches.
- 2.3.4. Elbow Padding The padding of the elbow shall be from the same material as the sleeve and shall be creased in with an edge-turning machine to insure uniformity of size and shape. The two (2) paddings with appropriate dimensions in accordance with the attached Table of Finished sizes and measurements (Table 1) are to be patched at the center of the elbow sleeves. Elbow padding shall be filled with fiberfill.
- 2.3.5. Cuffs Each cuff shall be one piece cut from the material specified in para 2.2.1.1 of double thickness formed to the correct size and shape with one end having a pointed extension and sewed with double rows of stitching along the edge of the sleeve opening sewed vertically as illustrated. The dimensions of cuff shall be in accordance with the attached Table of Finished Size and Measurements (Table I). It shall be provided with olive drab (OD) Velcro tape (hook), 5.0 ± 0.3 cm wide and 8.0 ± 0.5 cm long, sewed from the end of the pointed extension as illustrated. An olive drab (OD) Velcro tape (loop), 5.0 ± 0.3 cm wide and 10.0 ± 0.5 long, shall be sewed on the sleeve opening 5.5 ± 0.5 cm from the setting of the cuff for quick and easy adjustment and it shall be aligned with Velcro tape (hook) on the cuffs.

2.4. Workmanship

- 2.4.1. Design The design of the finished Tactical Shirt shall be essentially the same as shown in Figures 1, 2 & 3 and the official sample of the Philippine Army.
- 2.4.2. Finish The Tactical Shirt shall be clean, well-finished, well-pressed and free from any defect which may affect its appearance or serviceability. Overall workmanship shall be the best known to the trade. Poor quality of sewing or workmanship shall be sufficient ground for rejection of the finished article.



Page 4 of 9 Honor. Patriotism. Duty.

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QM SPEC NR IC-21PATSPS 0 7 AUG 2022

2.4.3. Contractor's Label with Washing Instruction –The contractor's label with washing instruction shall be printed on the inside back portion, 2.5 ± 1.0 cm below the collar seam using black paint, Arial font, Size 12.

2.4.4. The label shall consist of the following:

PHILIPPINE ARMY TACTICAL SHIRT, POLYESTER, SPANDEX Name of Contractor:
Size:

WASHING INSTRUCTION

MACHINE WASHABLE / WASH WITH LIKE COLORS DO NOT BLEACH / TUMBLE DRY LOW / WARM IRON DO NOT DRY CLEAN

3. VERIFICATION

3.1. First Article Inspection – The two samples of the finished Tactical Shirt including materials and components submitted in para 2.1 shall be subjected to first article inspection by Philippine Army representative/agency. The samples shall be subjected to tests and examination to verify if the requirements in para 2.2 through 2.4 are satisfied with reference to the attached test parameters.

3.2. Sampling

3.2.1. Samples of finished Tactical Shirt shall be taken at random during acceptance and shall be subjected to test evaluation at authorized agency/facility. Inprocess inspection shall be conducted when stipulated in the contract for the purpose of examination to determine compliance with the requirements of the specification and immediate correction on the overall workmanship can be conducted.

4. QUALITY ASSURANCE PROVISIONS

- 4.1. Responsibility for Inspection Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. The Government reserves the right to perform any of the inspections set forth in this document where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.
- 4.2. Responsibility for Compliance All items must meet all requirements of Sections 2 and 3. The absence of any inspection requirements in the document shall not relieve the contractor of the responsibility of assuring that all product or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept of defective material.



Page 5 of 9
Honor. Patriotism. Duty.



QM SPEC NR IC-21PATSPS

0 7 AUG 2022

4.3 Samples – The samples of the finished Tactical Shirt and materials shall be submitted for testing in accordance to the test procedure set forth by the Philippine Army to determine the extent of compliance with this specification insofar as quality of materials used is concerned. The Philippine Army representative shall determine the extent of compliance with the specification insofar as workmanship, style and finish are concerned.

5. PACKAGING AND PACKING

- 5.1 Packaging Each Tactical Shirt shall be placed in a transparent (cellophane) bag.
- 5.2 Packing Fifty (50) pieces of the Tactical Shirts shall be packed in a corrugated carton. The top cover, when closed, shall be sealed with a binding tape and finally secured with nylon straps. The box shall be labeled as follows:

PHILIPPINE ARMY TACTICAL SHIRT, POLYESTER, SPANDEX Name of Contractor: QTY: 50 pieces

SIZE:

6. MISCELLANEOUS

6.1 Any point not covered by this text shall be supplement and supported by the attached illustration as reference guide.

Prepared by:

ENER C CONTILLO

MAJ (QMS) PA Chief, Plans & Research Branch Recommend Approval:

DEXTER A MACASAET COL MUSA (QMS) PA

Chief

Approved by:

ROMEO S BRAWNER JR Lieutenant General, PA

Commanding General, PAL

Page 6 of 9
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QM SPEC NR IC-21PATSPS 0 7 AUG 2022

Interim

TABLE OF SIZES AND MEASUREMENTS IN CENTIMETERS

		X - Small	Small	Medium	Large	XL	XXL	Tolerance
AB	Body Width	48	50	53	56	60	64	± 2.0
ВС	Body Length	66	70	73	76	79	82	± 2.0
CD	Shoulder Sleeve Length	70	72	75	78	80	80	± 2.0
DE	Arm Sleeve Length	51	53.5	56.5	59.5	61.5	61.5	± 2.0
EF	Width of Sleeve Opening	13	14	15	16	17	18	± 1.0
FG	Length of Cuffs	13	13	13	13	13	13	± 1.0
GH	Width of Cuffs	5	5	5	5	5	5	± 1.0
НІ	Elbow Padding Width	12	12	12	12	12	12	± 1.0
IJ	Elbow Padding Length	23.5	23.5	23.5	23.5	23.5	23.5	± 1.0
JK	Collar Width	4	4	4	4	4	4	± 1.0
KL	Neck Width (Zipped Collar)	19	20	21	22	23	23	± 1.0
LM	Bottom Hem	2.5	2.5	2.5	2.5	2.5	2.5	± 0.5
MN	Length of Zipper	19	19	19	19	20	20	± 2.0
OP,	Length Of Sleeve Pocket From Pocket Flap	17	17	17	17	17	17	± 0.5
QR	Width Of Sleeve Pocket	14	14	14	14	14	14	± 0.5



Page 7 of 9
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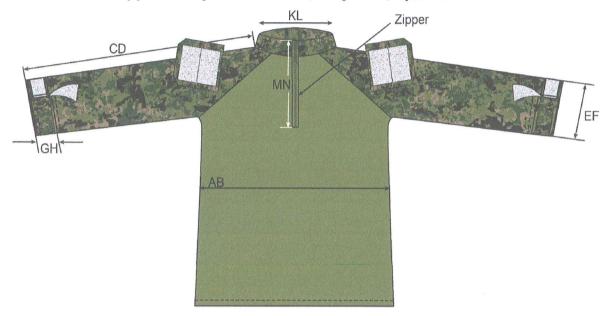
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QM SPEC NR IC-21PATSPS

0 7 AUG 2022

Interim

Philippine Army Tactical Shirt, Polyester, Spandex





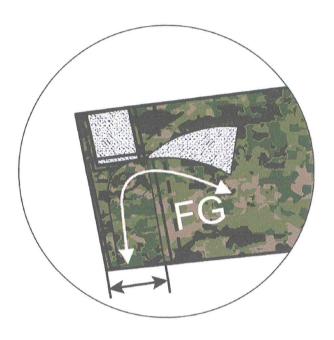


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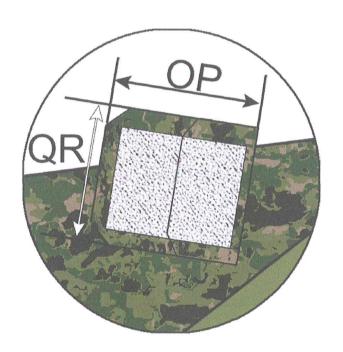
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Sleeve Pocket



Cuffs





HEADQUARTERS PHILIPPINE ARMY

OFFICE OF THE ARMY CHIEF QUARTERMASTER

Fort Andres Bonifacio, Metro Manila

TEST PARAMETERS

PHILIPPINE ARMY TACTICAL SHIRT, POLYESTER, SPANDEX

TEST PARAMETERS	QM SPEC NR IC-21PATSPS dtd 07 August 2022	CLASSIFICATION OF DEFECTS	
TEOT I / NO MIETERO		Major	Minor
Collar and Sleeves			
Basic Material, %	85% ± 5 cotton and 15% ± 5 polyester	X	
Pattern	Shall be as specified in Para 2.2.1.1.1	X	
Type of Weave	Twill with ripstop design		X
Ripstop Design, cm (L x W)	$0.6 \pm 0.1 \times 0.6 \pm 0.1$	_	X
Thread Count/2.54cm			
Warp	130 (minimum)		X
Filling	70 (minimum)		X
Yarn Size, Denier (Fine)	•		
Warp	160 (minimum)		X
Filling	160 (minimum)		X
Yarn Size, Denier (Coarse)	·		
Warp	600 (minimum)		X
Filling	750 (minimum)		X
Weight, g/m ²	200 (maximum)		X
Thickness, mm	0.30 - 0.35		X
Breaking Strength, kg			
Warp	70 (minimum)	X	
Filling	35 (minimum)	X	
Tearing Strength, kg			
Warp	4.5 (minimum)	X	
Filling	4.5 (minimum)	X	
Flex Abrasion Resistance (No.	(Commany		
of cycles until rupture)			
Warp	9,000 (minimum)	X	
Filling	9,000 (minimum)	X	
Dimensional Change, %	A second		
Warp	3 (maximum)	X	
Filling	3 (maximum)	X	
Colorfastness	AATCC Gray Scale Rating		
Laundering			
Change in Color	Grade 4 (minimum)	X	
Staining	Grade 4 (minimum)		X
Perspiration	(
Change in Color	Grade 4 (minimum)	X	
Staining	Grade 4 (minimum)	,	X
Color Quality (Color Difference)	2.0 (maximum)	X	, ,

316

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ARMY 2040: World Class. Multi-Mission Ready. Cross-Domain Capable.

QM SPEC NR IC-21PATSPS dtd 07 August 2022	CLASSIFICATION OF DEFECTS	
	Major	Minor
80% ± 5 Polyester and 20% ± 5 Spandex	X	
Olive Drab	Χ	
40 - 50		X
60 - 70		X
0.55 - 0.60		X
185 (maximum)		X
Plain	X	
1.5 (maximum) Spectrophotometric Method		
	X	
		X
	X	
		Χ
	X	
TVyion, No. 4, Olive Diab		
Shall be cut in accordance with the design shown in the		
	Χ	
	^	
	_	
		X
		X
		^
		Χ
		^
		~
		X
	^	
		V
		Χ
	-	
diagonal position with double rows of stitching	Χ	
	80% ± 5 Polyester and 20% ± 5 Spandex Olive Drab 40 - 50 60 - 70 0.55 - 0.60 185 (maximum)	QM SPEC NR IC-21PATSPS dtd 07 August 2022 Major

36

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ARMY 2040: World Class. Multi-Mission Ready. Cross-Domain Capable.

TEST PARAMETERS	QM SPEC NR IC-21PATSPS dtd 07 August 2022	CLASSIFICATION OF DEFECTS	
		Major	Minor
	It shall be provided with olive drab Velcro tape (loop), 9.5 ± 0.2 cm wide and 14.2 ± 0.5 cm long for attachment of patches	X	
Length of Sleeve Pocket from Pocket Flap	Refer to Table of Sizes And Measurement	Х	
Width of Sleeve Pocket	Refer to Table of Sizes And Measurement	X	
Shoulder Sleeve Length	Refer to Table of Sizes And Measurement	X	
Arm Sleeve Length	Refer to Table of Sizes And Measurement	X	
Width of Sleeve Opening	Refer to Table of Sizes And Measurement	X	
Elbow Padding	The padding of the elbow shall be made from the same material as the sleeve and shall be creased in with an edge-turning machine to insure uniformity of size and shape.	X	
	The two (2) paddings are to be patched at the center of the elbow sleeves	X	
	Elbow padding shall be filled with fiberfill		X
Elbow Padding Length	Refer to Table of Sizes And Measurement		X
Elbow Padding Width	Refer to Table of Sizes And Measurement		X
Cuffs	Shall be one piece cut from the basic material of double thickness	X	
	Formed to the correct size and shape with one end having a pointed extension and sewed with double rows of stitching along the edge of the sleeve opening sewed vertically as illustrated		X
	Shall be provided with olive drab (OD) Velcro tape (hook), 5.0 ± 0.3 cm wide and 8.0 ± 0.5 cm long, sewed from the end of the pointed extension as illustrated	X	
	An olive drab Velcro tape (loop), 5.0 ± 0.3 cm wide and 10.0 ± 0.5 long, shall be sewed on the sleeve opening 5.5 ± 0.5 cm from the setting of the cuff for quick and easy adjustment.	Х	
	The Velcro tape (loop) on the sleeve opening shall be aligned with Velcro tape (hook) on the cuffs.	Х	
Width of Cuff	Refer to Table of Sizes And Measurement	X	
Length of Cuff	Refer to Table of Sizes And Measurement	X	
Bottom Hem	Refer to Table of Sizes And Measurement		X
Collar Width	Refer to Table of Sizes And Measurement	X	/,
Neck Width	Refer to Table of Sizes And Measurement	X	
Length of Zipper	Refer to Table of Sizes And Measurement	Χ	
Design	The design of the finished Tactical Shirt shall be essentially the same as shown in Figures 1, 2 & 3 and the official sample of the Philippine Army	X	



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600



TEST PARAMETERS	QM SPEC NR IC-21PATSPS dtd 07 August 2022	CLASSIFICATION OF DEFECTS	
		Major	Minor
Contractor's Label with Washing Instruction	Shall have a Contractor's Label with Washing Instruction	X	
Location	Imprinted on the center of the inside back portion 2.5 ± 1.0 cm below the collar seam.		Х
Letterings	Using black paint, Arial font, size 12		X
Contents of Label	PHILIPPINE ARMY TACTICAL SHIRT, POLYESTER, SPANDEX Name of Contractor: Size: WASHING INSTRUCTION MACHINE WASHABLE / WASH WITH LIKE COLORS DO NOT BLEACH / TUMBLE DRY LOW / WARM IRON		X
Total Test Points	DO NOT DRY CLEAN	48	31

Prepared by:

GENER C CONTILLO

MAJ (QMS) PA Chief, Plans & Research Branch Recommend Approval:

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Chief



ARMY 204 Vorld Class. Multi-Mission Ready. Cross-/ main Capable.

HEADQUARTERS PHILIPPINE ARMY

OFFICE OF THE ARMY CHIEF QUARTERMASTER

Fort Andres Bonifacio, Metro Manila

PHILIPPINE ARMY TACTICAL SHIRT, POLESTER, SPANDEX dated 07 August 2022

LIST OF REQUIRED PROTOTYPE SAMPLES AND SWATCH MATERIALS FOR TESTING

1. POST QUALIFICATION TEST

SWATCH MATERIALS (Minimum requirement)

Collar and Sleeves - - - 3 meters (full width)

Body - - 3 meters (full width)

Thread, Sewing - - - 10 meters

PROTOTYPE SAMPLES

Three (3) pcs Tactical Shirt - any size but the three (3) pcs must be of the same size.

2. ACCEPTANCE TEST

Four (4) pcs Tactical Shirt - Picked at random from the delivery

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