



Royal Canadian Mounted Police
Gendarmerie royale du Canada

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Specification

Shirt, T, Crested Blue

This document has 21 pages including the drawings.

This document was created in English.

The document is available in English and French.

English/Anglais
Français/French

The photograph on this page is for reference only.

RCMP VIEWING SAMPLE

A viewing sample, when available, will be supplied to the successful tenderer.

This will be used for the guidance of the manufacturer in all factors not covered by this specification or referred to therein. Variation from the specification may appear in the sample in which case the specification shall govern.

It may be obtained from:

Royal Canadian Mounted Police
ATTN: Uniform and Equipment Program
(440 Coventry Road, Warehouse Building)
1200 Vanier Parkway
Ottawa, Ontario
K1A 0R2

It will be sent “prepaid” and is to be returned “prepaid”.

The viewing sample shall be returned to the RCMP in the same condition as received by the manufacturer. Lost or damaged viewing samples shall be replaced by an identical item or the RCMP shall be reimbursed for the cost of an acceptable replacement.

SPECIFICATION

SHIRT, T, CRESTED BLUE

1. Definitions

- 1.1 This specification shall govern the manufacture and inspection of Shirt, T, Crested, Blue.
- 1.2 This specification, pattern, drawing, viewing sample, or other information issued in connection therewith, may only be used for specific enquiries, tenders, or orders placed on behalf of the Royal Canadian Mounted Police.
- 1.3 This specification supersedes all previous specifications for R.C.M.P. Shirt, T, Crested, Blue.
- 1.4 This specification has been translated into French from this original English language document.

2. Applicable Specifications

- 2.1 The following publications are applicable to this specification and to the issues in effect on the date of the invitation to tender, unless otherwise specified.
- 2.2 CAN/CGSB 4.2, Textile Test Methods.
- 2.3 ISO 4915, International Standard for Textiles - "Stitch Types."
- 2.4 ISO 4916:1991, International Standard for Textiles - "Seam Types."
- 2.5 CAN/CGSB 4.131-93, Thread, Polyester, Polyester Covered.
- 2.6 CAN/CGSB-4.139-94, Thread, Polyester, Staple Spun.
- 2.7 CAN/CGSB 86.1-2003, Care Labeling of Textiles.

3. **General Requirements**

- 3.1 The article or material covered by this specification shall be free from imperfections or blemishes such as may affect its appearance or serviceability. In all particulars not covered by this specification or contract documents, production shall be equivalent in all respects to the pattern and viewing sample.
- 3.2 **Design** - The Shirt, T, Crested Blue shall be navy in colour constructed from a knit material. The overall design shall be a semi-fitted silhouette that incorporates a crew neckline with short sleeves. The R.C.M.P. crest shall be applied to the front. It shall be constructed in accordance with the scale of measurements, patterns and drawings which form part of this specification.
- 3.3 In the event of any inconsistency in contract documents, specification, pattern, drawing, or viewing sample, the aforementioned shall prevail in the following order:
- (i) Contract
 - (ii) Specification
 - (iii) Pattern
 - (iv) Drawings
 - (v) Viewing Sample

4. **Detail Requirements**

4.1 **Materials**

- 4.1.1 **Shell Material** - The shell material shall be as specified in Table I. It shall be navy in colour to match the swatch available from Uniform and Equipment Program.
See Appendix C for required documentation.
- 4.1.2 **Rib Material** - The ribbing used in the neck shall be as specified in Table II. It shall be navy in colour to match the shell material.
See Appendix C for required documentation.
- 4.1.3 **Reinforcement Tape** - Shall be shell material as specified in Para. 4.1.1, 1-1.5cm in width when applied.

4.1.4 **Thread** - The thread for all operations shall be navy in colour matching the shell material constructed from either polyester core, polyester wrap, Tex 27 meeting CAN/CGSB 4.131-93 or polyester staple spun, Tex 27 meeting CAN/CGSB 4.139-94.

Certification of compliance must be provided.

4.1.5 **Crest** - The official crest of the R.C.M.P. shall be applied using a silk screen process or ink based heat transfer. It is expected to withstand a minimum of 50 home launderings according to the required care procedures without cracking, peeling, fading, stiffening and bubbling. When applied, the shell material shall not change in colour or appearance. The artwork for the crest shall be provided by RCMP Uniform and Equipment Program in full colour and shall be to scale. The Pantone colours used in the crest shall be as follows: Yellow - 7405C, Red - 1797C, Blue - 2955C, Light Blue - 283C, Green - 363C, Light Brown - 4715C, White.

Certification of compliance must be provided.

4.2 **Size and Dimensions** - Shirt, T, Crested Blue to this specification shall be supplied in the sizes specified by the RCMP and to the dimensions given in the patterns, scales of measurements and drawings, forming part of this specification. The garment components shall be shaped, dimensioned and positioned in accordance with the pattern components and pattern requirements as outlined in Appendix "A" forming part of this specification.

4.3 **Construction**

4.3.1 **Cutting** - All component parts of the shirt body shall be cut from the same piece of material to ensure uniformity of shade and shall be cut in the direction of the wales following the grain line on the pattern piece. The material shall be acclimatized and allowed to relax prior to cutting. The shirt body may be cut with or without side seams as long as finished garment dimensions meet the requirements in the Scales of Measurements. Care shall be taken to cut the material without stretching or skewing to ensure a symmetrical appearance. Cutting on the fold lines is acceptable provided the crease not be visible in the finished garments.

4.3.2 **Stitching** - Using the specified thread, there shall be not less than 4 and no more than 5.5 stitches per cm. All stitching shall conform to the specified type outlined in ISO 4915. The construction of the shirt body and sleeve shall be overlock type 512. The stitching at the hem and sleeve hem shall be cover stitch type 406.

Stitching on the tape at the shoulder and neck shall be two rows chain stitch Type 401. The beginning and ending of all stitching shall be securely backstitched and tacked unless secured by other stitching. Where seaming, turning and stitching is required the edges shall be properly worked out before stitching. Care shall be taken to minimize unsightly gathering and puckering.

- 4.3.3 **Body** - The front and back panels shall be made from material as specified in Para. 4.1.1. The front, back and sleeve seams shall be sewn together using overlock stitch type 512 with a minimum width of 5mm seam allowance. The front and back panels shall be sewn together at the shoulder seams and shall be stabilized on each shoulder and at the back of the neckline with a reinforcement tape as specified in Para. 4.1.3 to prevent stretching. The reinforcement tape shall be applied after the shoulder seams and neckline have been constructed. The body shall be constructed as per pattern and conform in all respects to the pattern and drawings.
- 4.3.4 **Neckline** - The neckline shall be constructed from one ply of rib material, as specified in Para. 4.1.2, folded lengthwise to have a 3cm wide ribbing and serged to the neckline then cover stitched. The finished rib width shall be 2.5 cm \pm 0.2 cm. The neckline shall be constructed, dimensioned and positioned as per the patterns and viewing sample.
- 4.3.5 **Sleeves** - Both one piece short sleeves shall be made from material as specified in Para. 4.1.1. The hem shall be finished by turning in the raw edge and finishing using a cover stitch Type 406. The hem shall be done after side seam and under arm seam are completed or if the hem is done before closing sleeve seam, then a bar tack must be sewn through all layers at under arm sleeve hem. Care shall be taken to ensure that no more than 4mm of raw edge is left uncovered. The sleeve shall be positioned and constructed as per patterns, drawings and viewing sample.
- 4.3.6 **Joining, Sleeve, Underarm and Side Seams** - The join shall be by means of a serged safety stitch Type 512. The sleeve shall be sewn to the armhole first and then the side seam and underarm seam shall be sewn in one continuous seam.
- 4.3.7 **Bottom Hem** - The bottom edge of the shirt front and back shall be hemmed by turning in the raw edge and finishing using a cover stitch Type 406. Care shall be taken to ensure that no more than 4mm of raw edge is left uncovered.
- 4.3.8 **Crest** - The official crest of the R.C.M.P. meeting the requirements in Para. 4.1.5 shall be silk screened or ink based heat transfer on the left side of the shirt front.

The crest shall be placed parallel to center front in an upright position using the dimensions in drawing #2. The surface of the crest must be smooth and not exhibit any bubbles, irregularities or contamination. After application the edges must be clean and well defined. The size and colours shall match the artwork file. The colours shall be as specified in Para. 4.1.5. Drawing #4 shall be used as a reference.

- 4.3.9 **Marking** - Each shirt shall have a polyurethane adhesive heat transfer label that is heat bonded with inks and centered inside the back neckline. The label shall withstand at least 50 washes and show no apparent change in appearance. The label background shall be similar in colour to the shell material and use white or grey lettering and coloured care symbols. The following information shall be marked legibly and indelibly as requested:

Where the word “*insert the*” appears, enter only the information requested. (Example: *Insert the Size*, only enter L Regular/G Régulier)

Royal Canadian Mounted Police	Gendarmerie royale du Canada
Shirt, T, Crested Blue	
T-shirt bleu avec écusson	
<i>Insert the Size</i> (as per contract)	
<i>Insert the Manufacturer's Identification</i>	
<i>Insert the Date of Manufacture</i> (Numeric format)	
<i>Insert the R.C.M.P. Stock Number</i>	
<i>Insert the Care Instructions</i> as per drawing	

Note: The manufacturer’s identification shall not appear anywhere on the garment except on the garment label as indicated.

5. **Delivery, Packing and Marking of Containers**

- 5.1 Unless otherwise specified the items shall be delivered to the Commissioner, RCMP, Uniform and Equipment Program, Ottawa, Ontario, free of transportation charges and Provincial tax where applicable.
- 5.2 Packing and marking of shipping containers shall be as specified in the invitation to tender.

5.3 A packing slip shall be enclosed showing contents of each shipment.

6. **Quality Assurance Provisions**

- 6.1 **Responsibility for Inspection** - Unless otherwise stipulated in the contract, it is the prime contractor's responsibility to satisfy the RCMP, Uniform and Equipment Program, that the material and services being supplied conform to this specification. This may be accomplished by performing the tests specified in this specification or by demonstrating to the satisfaction of the RCMP, Uniform and Equipment Program that conformity to this specification of manufacturing processes is assured. The contractor may use any commercial testing establishment acceptable to the RCMP, Uniform and Equipment Program.
- 6.2 The RCMP, Uniform and Equipment Program reserves the right to perform any inspection considered necessary to ensure the material and services conform to the specified requirements. For the purpose of inspection, a portion of each delivery not exceeding two percent or two out of any number delivered under 100 may be put to tests that could destroy the articles. If found to be inferior or not in accordance with this specification, all articles so destroyed shall be replaced by others of proper quality and pattern at the expense of the contractor. The entire delivery may also be rejected if it is found that articles previously rejected due to non-repairable defects are redelivered for inspection.
- 6.3 The contractor will be promptly notified when any articles are not accepted and such articles will be returned at the contractor's risk and expense.

TABLE I
Properties of the Shell Material

SHELL MATERIAL	SPECIFICATION	TESTED BY CAN-2-4.2
Colour	Navy To match colour swatch provided by Uniform and Equipment Program	
Fiber Content	50% Polyester/ 50% Cotton $\pm 3\%$	Method 14-2005
Knit Construction	Jersey	
Wales per inch	33 ± 5	Method 7-M88(2001)
Courses per inch	34 ± 5	Method 7-M88(2001)
Mass	$170 \text{ g/m}^2 \pm 8 \text{ g/m}^2$ ($162\text{g/m}^2 - 178\text{g/m}^2$)	Method 5.1-M90(2004)
Dimensional Change to Domestic Washing After 5 cycles	Warp 5% (max.) Weft 5% (max.)	Method 58-2004,3,E
Colour fastness to Light	equal to or better than AATCC Standard L4	Method 18.3-97
Colour fastness to Crocking Wet & Dry	Dry - Grey Scale 4 or better Wet - Grey Scale 3 or better	Method 22-2004
Colour fastness to Washing	Colour change Grey Scale 4 or better Staining cotton - Grey Scale 4 or better Staining polyester – Grey Scale 3 or better	Method 19.1-2004 Test #2
Colour fastness to Perspiration	Colour change and staining (Acid & Alkaline) - Grey scale 4 or better	Method 23-M90(2004)
Pilling	No less than 3.5 after 30 minutes	Method 51.2-M87

Test reports shall be provided to ensure the product meets or exceeds the above requirements. Appendix “C” - Certificate of Compliance and Evaluation Criteria shall specify the type of documents that shall be submitted.

TABLE II
Properties of the Rib Material

RIB MATERIAL	SPECIFICATION	TESTED BY CAN-2-4.2
Colour	Navy To match colour swatch provided by Uniform and Equipment Program	
Fiber Content	50% Polyester/ 50% Cotton $\pm 3\%$	Method 14-2005
Knit Construction	1x1 Rib	
Wales per inch	28 ± 5	Method 7-M88(2001)
Courses per inch	34 ± 5	Method 7-M88(2001)
Mass	$255 \text{ g/m}^2 \pm 15 \text{ g/m}^2$ ($240 \text{ g/m}^2 - 270 \text{ g/m}^2$)	Method 5.1-M90(2004)
Dimensional Change to Domestic Washing <i>After 5 cycles</i>	Warp 6% (max.) Weft 6% (max.)	Method 58-2004,3,E
Colour fastness to Light	equal to or better than AATCC Standard L4	Method 18.3-97
Colour fastness to Crocking Wet & Dry	Dry - Grey Scale 4 or better Wet - Grey Scale 3 or better	Method 22-2004
Colour fastness to Washing	Colour change Grey Scale 4 or better Staining cotton - Grey Scale 4 or better Staining polyester – Grey Scale 3 or better	Method 19.1-2004 Test #2
Colour fastness to Perspiration	Colour change and staining (Acid & Alkaline) - Grey scale 4 or better	Method 23-M90(2004)
Pilling	No less than 3 after 30 minutes	Method 51.2-M87

Test reports shall be provided to ensure the product meets or exceeds the above requirements. Appendix “C” - Certificate of Compliance and Evaluation Criteria shall specify the type of documents that shall be submitted.

SCALE OF MEASUREMENTS - SHIRT, T, CRESTED BLUE

Size Designation		Body Measurements		Finished Garment Measurements								
Height	Size	Chest		Chest Circ. (2 only)	Hem Circ. (2 only)	Back Length excluding ribbing	Front Length excluding ribbing	Side Seam Length	Sleeve Length		Sleeve Hem Circ. (2 only)	Shoulder Length
		Inches	Cm						Short Sleeve Overarm	Short Sleeve Underarm		
Regular	XXS	31" - 33"	78.75 - 83.75	43.5	43.5	64.75	58.5	41.75	20	13.25	17	13.25
	XS	34" - 36"	86.25 - 91.5	47.25	47.25	66.5	60.25	43.25	20.5	13.5	17.75	14
	S	37" - 39"	94 - 99	51	51	68	61.75	44.75	21	13.75	18.25	14.5
	M	40" - 42"	101.5 - 106.75	54.75	54.75	70.5	64.5	47.25	21.5	14.25	19	15.25
	L	43" - 45"	109.25 - 114.25	58.5	58.5	73	66.75	49.5	22	14.5	19.75	16
	XL	46" - 48"	116.75 - 122	62.25	62.25	73.75	67.5	50.25	22.25	14.75	20.25	16.5
	2XL	49" - 51"	124.5 - 129.5	66	66	74.5	68.5	51	22.75	15	21	17.25
	3XL	52" - 54"	132 - 137.25	69.75	69.75	75.5	69.25	51.75	23.25	15.25	21.75	17.75
	4XL	55" - 57"	139.75 - 144.75	73.5	73.5	76.25	70	52.5	23.75	15.5	22.25	18.5
	5XL	58" - 60"	147.25 - 152.5	77.25	77.25	77	71	53.25	24.25	15.75	23	19.25
Tall	XXS	31" - 33"	78.75 - 83.75	43.5	43.5	69.75	63.5	46.75	21.5	14.5	17	13.25
	XS	34" - 36"	86.25 - 91.5	47.25	47.25	71.5	65.25	48.25	22	14.75	17.75	14
	S	37" - 39"	94 - 99	51	51	73	66.75	49.75	22.5	15	18.25	14.5
	M	40" - 42"	101.5 - 106.75	54.75	54.75	75.5	69.5	52.25	23	15.5	19	15.25
	L	43" - 45"	109.25 - 114.25	58.5	58.5	78	71.75	54.5	23.5	15.75	19.75	16
	XL	46" - 48"	116.75 - 122	62.25	62.25	78.75	72.5	55.25	23.75	16	20.25	16.5
	2XL	49" - 51"	124.5 - 129.5	66	66	79.5	73.5	56	24.25	16.25	21	17.25
	3XL	52" - 54"	132 - 137.25	69.75	69.75	80.5	74.25	56.75	24.75	16.5	21.75	17.75
	4XL	55" - 57"	139.75 - 144.75	73.5	73.5	81.25	75	57.5	25.25	16.75	22.25	18.5
	5XL	58" - 60"	147.25 - 152.5	77.25	77.25	82	76	58.25	25.75	17	23	19.25
Tolerance ±				1.5cm	1.5cm	1.5cm	1.5cm	1cm	1cm	1cm	1cm	1cm
Measurement Location				A	B	C	D	E	F	G	H	J

Note: All measurements in centimeters unless otherwise indicated.

Appendix A / Annexe A
Sealed Pattern Identifier / Identificateur de patrons réglementaire

Paper Patterns - Paper patterns are available from the RCMP, Uniform and Equipment Program, Ottawa, Ontario, under Pattern # RCMP- G.S. 1045-342 Shirt, T, Unisex. Firms requested to produce Pre-contract Award Samples will be provided with the base pattern only. The full set of patterns either in individual sizes or as a graded nest will be provided to the successful bidder after the contract is awarded.

The paper patterns include seam allowances, drill holes and/or placement templates. The scale of measurements indicate the finished garment measurements however the patterns are larger to accommodate shrinkage. The manufacturer is responsible for adjusting the pattern accordingly, based on the materials purchased, to meet the scale of measurements. Contractors may make changes required to suit their production process, however, the design and grade shall not be affected or changed.

All shell parts must be cut in the direction indicated on the grain line of the pattern pieces.

All patterns are the property of the RCMP and must be returned upon completion of the contract.

Patrons - Les patrons imprimés sont disponibles auprès de la Section du contrôle de la qualité de la GRC, Ottawa (Ontario), sous le titre Modèle n° G.S. 1045-342 T-shirt, unisexe. Un patron de base sera fourni aux entreprises invitées à présenter des échantillons préalables à l'adjudication. L'ensemble complet des patrons, soit un de chaque taille ou en nid de gradation, sera fourni au soumissionnaire retenu après l'attribution d'un contrat.

Les patrons de papier comprennent les réserves de couture, les crans et les points de repère et/ou les gabarits de mise en place. Le tableau des mensurations indique les mesures du vêtement fini, toutefois, les patrons sont plus grands en prévision du rétrécissement du tissu. Il incombe au fabricant d'ajuster le patron en fonction du tissu acheté afin de se conformer au tableau des mensurations. Les entrepreneurs peuvent apporter les changements qui s'imposent en raison de leurs procédés de fabrication, mais ces derniers ne doivent pas influencer ni modifier la conception et la gradation.

Tous les composants doivent être taillés sur la ligne du droit fil indiquée sur le patron.

Tous les patrons sont la propriété de la GRC et doivent être retournés à la fin du contrat.

Pattern # / Patron RCMP- G.S. 1045-342
nE:

Title / Titre : Shirt-T, Unisex/ T-shirt, unisexe

Pattern Pieces/ 4
Pièces du patron :

Legend		Légende :	
Shell Material	= Para. 4.1.1	Tissu de base	= Par. 4.1.1
Ribbing	= Para. 4.1.2	Côtes	= Par. 4.1.2
Cut 1 Single	= Cut 1	Coupe 1 simple	= Coupe 1
Cut 1 Paired	= Cut 2	Coupe 1 paire	= Coupe 2
*(RSU)	= Right Side Up	** (EVH)	= Endroit vers le haut

Pattern Components / Composants de patron	Nomenclature	Quantity to be cut / Quantité à couper	Material / Tissu
# 1 of/de 4	Back / Dos	1 pièce /1 Single	Tissu extérieur (EVH) **/Shell Material (RSU)*
# 2 of/de 4	Front / Devant	1 pièce /1 Single	Tissu extérieur (EVH) **/Shell Material (RSU)*
# 3 of/de 4	Sleeve / Manche	2 pièces/1 Paired	Tissu extérieur (EVH) **/Shell Material (RSU)*
# 4 of/de 4	Neckband / Bande d'encolure	1 pièce /1 Single	Tissu côtelé (EVH) **/Ribbing (RSU)*

Appendix B

Scale of Measurement Definitions and Location References

Refer to the Scale of Measurements and drawing #1

- A. **Chest Circ. ($\frac{1}{2}$ only)** - When placed flat, the chest shall be the distance across the shirt, measured at the lowest point of the armholes.
- B. **Hem Circ. ($\frac{1}{2}$ only)** - When placed flat, the hem shall be the distance across the shirt, measured in a straight line just above the stitching.
- C. **Back Length excluding ribbing** - The length shall be the distance measured from the base of the neckline at centre back below the ribbing to the hem.
- D. **Front Length excluding ribbing** - The length shall be the distance measured from the base of the neckline at centre front below the ribbing to the hem.
- E. **Side Seam Length** - The side seam length shall be the distance measured from the lowest point of the armhole to the hem.
- F. **Sleeve Length Overarm** - The overarm sleeve length shall be the distance from the armhole at the shoulder seam to the bottom edge of the sleeve hem.
- G. **Sleeve Length Underarm** - The underarm sleeve length shall be the distance along the sleeve seam from the armhole to the bottom edge of the sleeve hem.
- H. **Sleeve Hem Circ. ($\frac{1}{2}$ only)** - When placed flat, the sleeve hem shall be the distance measured at the bottom edge of the sleeve.
- J. **Shoulder Length** - The length shall be the distance measured along the shoulder seam from neckline below ribbing to sleeve seam.

Appendix C

Certification & Evaluation Criteria

Appendix C contains definitions of compliance and certification requirements for all materials specified in this document. The evaluation criteria is a reference list and shall be used by RCMP Uniform & Equipment Program Section to ensure all documentation is received and meets the requirements outlined in this specification.

Definitions:

Certification of compliance: Compliance certification documents shall be based on testing from a raw goods manufacturer from an in-house or independent, third-party accredited laboratory acceptable to the RCMP to verify performance requirements as specified in this specification or where indicated an invoice from the raw good manufacturer is also acceptable.

Test Report: Test report documents shall include the test method, test conditions and test results performed by an independent, third-party accredited laboratory acceptable to the RCMP to verify requirements as specified in this specification.

All certificates and test reports that verify the performance of materials used in manufacturing the finished item shall be retained by the manufacturer and shall be made available to ensure that all items meeting the requirements have completed all of the testing and certification required by this specification. Failure to provide the requested documentation shall be cause for rejection. Failure to meet the requirements when tested by the RCMP Uniform & Equipment Program Section shall be cause for rejection.

Appendix “C” - Evaluation Criteria

Material (Table I & II)	Certificate of Compliance	Test Reports	Pass/Fail/ C of C	
			Table I	Table II
Fiber Content		Required		
Mass		Required		
Dimensional Change to Domestic Washing After 5 cycles		Required		
Colourfastness - To Washing		Required		
Colourfastness - To Light		Required		
Colourfastness - To Crocking Dry and Wet		Required		
Colourfastness - To Perspiration		Required		
Pilling		Required		
Knit Construction		Required		
Wales per inch		Required		
Courses per inch		Required		
Thread (Para. 4.1.4)	Required			
Crest (Para. 4.1.5)	Required			