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No.U.II-98(Spec)/2024-25-Prov-(S/U-VIP)-14 Dated, the 16 July' 2024

To

The DsG: AR, BSF, CISF, ITBP, NSG, SSB and BPR&D

Subject: QRs/Specification of "Tie for VIP Security Personnel of CRPF".

It is to convey that the QRs/Specification in respect of "**Tie for VIP Security Personnel of CRPF**" has been approved by the competent authority.

2. Henceforth, VIP Security (CRPF) will procure the above item required by them, strictly as per the parameters laid down in the QRs/Specification.

3. This has the approval of DG, CRPF on 12/07/2024 (empowered vide MHA letter F. No. 11012/02/2009-Fin-I-17 dated 02/01/2018).

Encl: QRs/Spec. of Tie.

(Shahnawaz Khan)
DIG (Prov) Dte

No.U.II-98(Spec)/2024-25-Prov-(S/U-VIP)-14 Dated, the 16 July' 2024

Copy forwarded to:-

1. SO (IT), North Block-with request to upload the approved QRs/Specification of **"Tie for VIP Security Personnel of CRPF"** on MHA Website (e-mail ID : soit@nic.in).
2. **Sh. Paritosh Singhal, ACEO(GeM), and Sh. Abhishek Kakkar, Director - Category Management,** Government of India, Ministry of Commerce & Industry, Government e-Marketplace, Jeevan Tara Building, 5-Parliament Street, New Delhi-110001 with request to upload the approved QRs/Specification of **"Tie for VIP Security Personnel of CRPF"** on GeM Portal.
3. DIG (IT), Dte Genl., CRPF-with request to upload this approved QRs/Specification of **"Tie for VIP Security Personnel of CRPF"** on CRPF Portal and Selo Module.
4. All Zones/Sectors/GCs/Units (including VS Wing) HQr for information and necessary action.

(Shahnawaz Khan)
DIG (Prov) Dte

PART – V

SPECIFICATION OF TIE FOR VIP SECURITY (VS) UNITS OF CRPF

1. SCOPE

i The specification prescribes the requirement of "TIE" for VS Units of CRPF herein referred as "TIE".

ii In addition to specification of fabric, this QR gives a brief description of design/pattern of "TIE".

2. REFERENCES

The standards listed in "Annexure-A" contain provisions, which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated in "Annexure-A".

3. PROCESSING AND MANUFACTURE

3.1 ABOUT FABRIC

i The fabric shall be 100% Polyester. The fabric shall be 'Heat set' and fully shrunk.

ii The fabric used for making Tie for VS Units of CRPF shall be in conformity to all the attributes specifically mentioned in "Table-I".

3.2 COLOUR - Navy Blue with stripes (Sky Blue, Off White & Red) and a VS Wing Logo.

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3.3 STANDARD PATTERN AND DESIGN

a) The Tie shall be manufactured in the shape and design as illustrated in the figure (i) below –

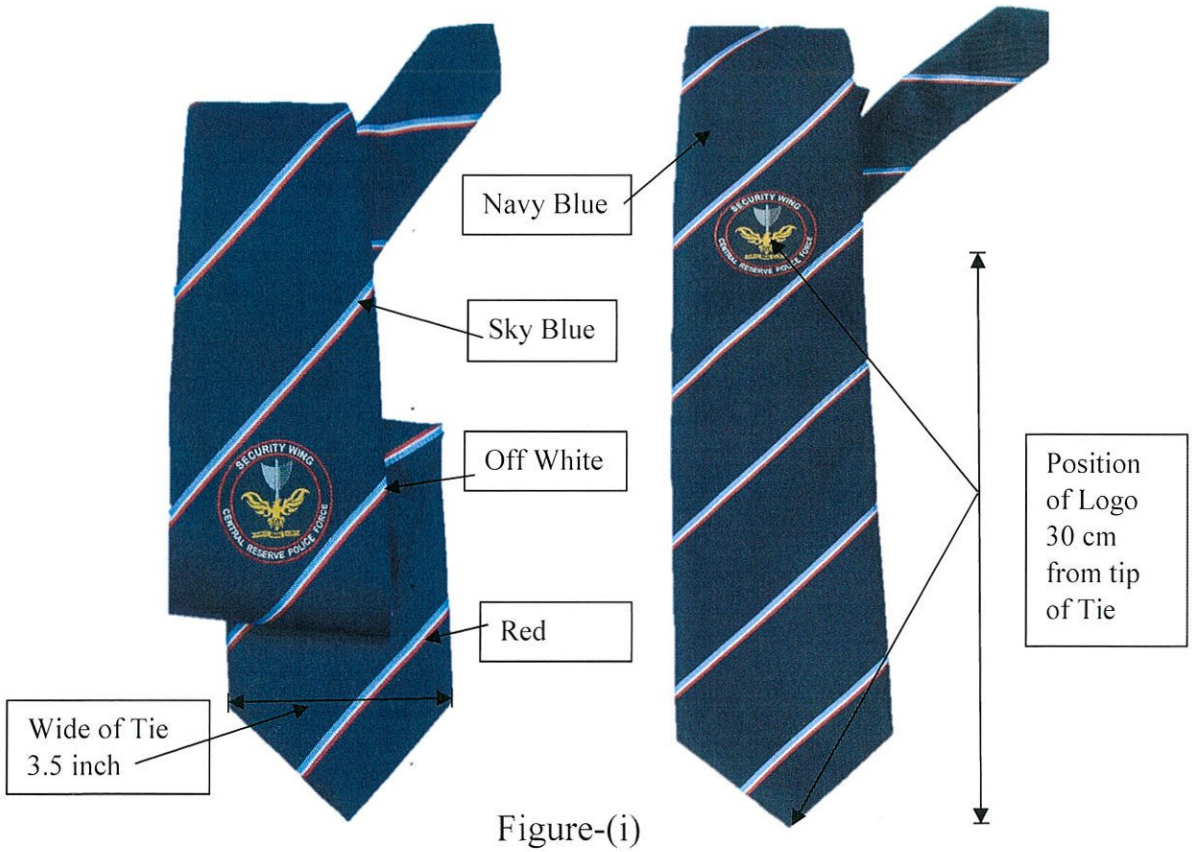

Figure-(i)

b) Besides having stripes and a VS Logo the aforesaid details, following pattern/design shall also be ensured-

- Colour of Tie- Navy Blue with Multi-Coloured stripes containing Red, Off White and Sky Blue in sequence as marked in Fig-(i). The strips will be woven in continuity of main fabric of tie.
- Width of Stripes- Red (1.5 mm), Off White (1.0 mm) and Sky Blue (2.0 mm).
- Distance between the Stripes- ***Top 68 mm, middle 72 mm and bottom 68 mm.***
- Length and width of Tie- 64 inch in length and 3.5 inch wide near blade.
- Marking on Tie- embroidered CRPF (VS)Wing logo of 04 cm diameter.
- Center of Logo to be placed at 30 cm from tip of tie.
- Successful bidder will obtain VS Wing logo of CRPF from VS Wing HQr.

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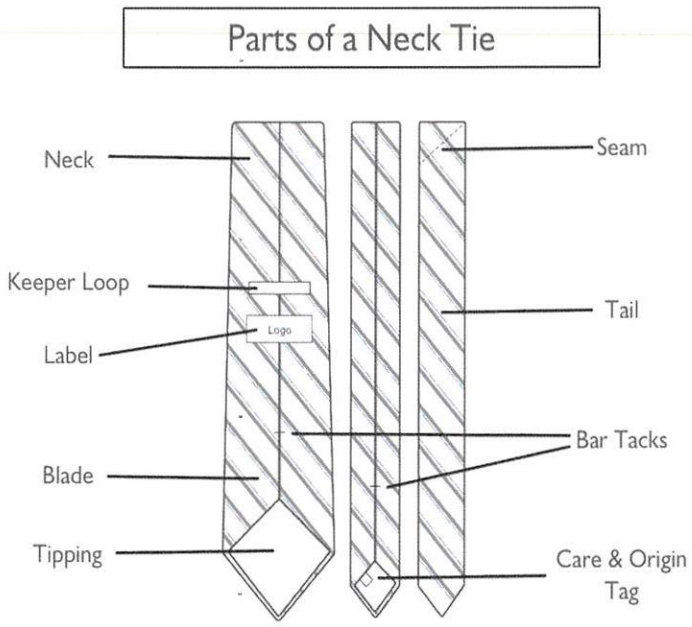

Figure – (ii)

- **BLADE / NECK / TAIL** - The Blade, Neck and Tail (as illustrated in figure – (ii)) of the Tie shall have smooth finishing of the fabric mentioned in Table – I.
- **KEEPER LOOP** - The Keeper Loop of the Tie shall be attached to the back of the blade appropriately as shown in figure – (ii).
- **TIPPING** - Tipping is the fabric that is sewn onto the backside of the tip and tail of the Tie. The fabric used for tipping shall be the same as used for manufacturing the Tie. (refer figure – (ii)).
- **SHELL -** The Shell also known as the "envelope", because it is the outermost material of the necktie. The Shell shall maintain the overall shape of the tie itself. The fabric of the shell shall be cut "on the bias" (45 degrees to its warp and weft threads).
- **CARE AND ORIGIN TAG** - The care and origin tag of the Tie shall contain details and information about the Tie which shall include materials used and specific care instructions.
- **SEAM** - The Seam of the Tie shall be such that it should not be visible when a knot is made.
- **BAR TACKS** – The bar tacks of the Tie must have heavy stitch at the back of the tie that helps in holding the two folded sides together. It must be able to maintain the tie's shape.

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3.4 SIZE

64 inch in length and 3.5 inch wide near blade with buyer requirements mentioned in contract documents.

4. WORKMANSHIP AND FINISH

The "Tie" shall be free from workmanship defects or any other defect which may significantly affect the appearance or serviceability of "Tie".

5. DEFECT

A failure or fault such that the product does not satisfy specified physical or chemical requirement, or performance characteristics. It also includes any irregularity in material, workmanship, or damage due to careless and inadequate packing.

6. QUALITY ASSURANCE

6.1 On examination of random samples taken from any portion of the consignment or during surveillance inspection, shall conform to the requirement when tested in accordance with the method mentioned against each in the specification.

6.2 The store should be of the latest manufacture, conforming to the current production standard and having 100% defined life at the time of delivery.

7. SAMPLING AND CRITERIA FOR CONFORMITY

7.1 The number of pieces to be selected at random from a lot for inspection to ensure randomness of selection, procedure given in IS: 4905 shall be followed.

7.2 The number of samples of Tie delivered to a buyer against a dispatch, shall constitute a lot. The conformity of a lot to the requirements of this specification shall be determined on the basis of the tests carried out on the samples selected from the lot.

7.3 The criterion for conformity shall have the characteristics of (i) Visual inspection for freedom from major flaws (ii) Weight, length and width (iii) Blend composition, shrinkage, breaking strength, tearing strength, colour fastness, pH etc. (iv) Finishing and all specimens shall satisfy the relevant requirement.

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8. MARKING

Marking shall include –

(a) Name of the textile material.
(b) Batch number and date of manufacture for traceability.
(c) Indication of the source of manufacture.
(d) Care labelling symbols as per IS 14452 depending upon end use.
(e) Any other information as required under law.

9. PACKAGING & PACKING

The Tie shall be packed as required by the buyer.

Table I : Requirements for Tie

Sl. No.	Test Parameters	Test Method	Unit	Requirements
1.	**Thread Density**, Minimum - **Ends/dm** - **Picks/dm**	IS 1963 : 1981 (RA 2018)	 - -	 **700** **430**
2.	**Mass**, Maximum	IS 1964 : 2001 (RA 2022) Method A	g/m^2	**130**
3.	**Blend Composition (Outer Fabric)**	IS 667:1981 (RA 2022) & IS 3416:1988 (RA 2022) Based on dry mass	%	**Polyester 100%**
4.	**Colour fastness to Light,** Minimum	IS/ISO 105-B02:2014 Exposure Cycle A1 (RA 2022) (Superseding IS 2454:1985)	Rating	**5 (On Blue wool)**
5.	**Colour fastness to Washing,** Minimum - **Change in Colour** - **Staining on Wool** - **Staining on Acrylic** - **Staining on Polyester** - **Staining on Nylon** - **Staining on Cotton** - **Staining on Acetate**	IS/ISO 105 C10: 2006 A (1) (RA 2021)		 **4** **4** **4** **4** **4** **4** **4**

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6.	**Colour Fastness to Perspiration,** Minimum - **Change in Colour** - **Staining on Wool** - **Staining on Acrylic** - **Staining on Polyester** - **Staining on Nylon** - **Staining on Cotton** - **Staining on Acetate**	IS/ISO 105 E04: 2013 (Superseding IS 971:1983)	Grade	**Acidic** **4** **4** **4** **4** **4** **4** **4**	**Alkaline** **4** **4** **4** **4** **4** **4** **4**
7.	**Count of Yarn** (for guidance) **-Warp** **-Weft**	IS 3442 : 2023	Ne	**100** **100**	
8.	**Crease Recovery Angle,** Minimum **(warp + weft)**	IS 4681 : 1981 (RA 2018)	Degree	**250**	
9.	**Composition Backing material (same or similar colour to Navy Blue)**	IS 667:1981 (RA 2022)	%	**100% Polyester**	
10.	**Mass of Backing material**	As per guidance of IS 1964 : 2001 (RA 2022) Method A	g/m^2	**80±3**	
11.	**Composition of Interlining Material (same or similar colour to Navy Blue)**	IS 667:1981 (RA 2022)	%	**100% Polyester**	
12.	**Mass of Interlining material**	As per guidance of IS 1964 : 2001 (RA 2022) Method A	g/m^2	**400±10**	

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Table 2: Specification of colour of Tie

(Guideline of AATCC Test Method 173 : 2015 & AATCC Evaluation Procedure-7:2015)

Colour	:	Navy Blue
System	:	CIE LCH
Illuminant Observer	:	D-65
Standard Observer	:	10 Degree

Tristimulus Values :

X	Y	Z
3.093	**3.107**	**5.273**

LCH :

L	C	H
20.468	**10.699**	**284.045**

CMC (l:c) : 2:1

Colour Difference, ΔE_{cmc} : ≤ 1.2

Interpretation of Results :

i) If ΔE_{cmc} is less than or equal to 1.2, then the sample is acceptable.

ii) If ΔE_{cmc} is greater than 1.2, the sample is unacceptable.

Note-1 : Absorbance/ reflectance/ transmittance are affected by surface characteristic features of the substrate. Therefore, comparison should be made between samples of the same type i.e. identical fabric construction parameters and filament/ fiber composition.

Note-2 : Test should be carried out after proper conditioning as per AATCC 173.

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Table 2: Specification of colour of Tie

(Guideline of AATCC Test Method 173 : 2015 & AATCC Evaluation Procedure-7:2015)

Colour	:	Red
System	:	CIE LCH
Illuminant Observer	:	D-65
Standard Observer	:	10 Degree

Tristimulus Values :

X	Y	Z
18.396	**10.206**	**3.078**

LCH :

L	C	H
38.210	**64.471**	**29.992**

CMC (l:c) : 2:1

Colour Difference, ΔE_{cmc} : ≤ 1.2

Interpretation of Results :

i) If ΔE_{cmc} is less than or equal to 1.2, then the sample is acceptable.
ii) If ΔE_{cmc} is greater than 1.2, the sample is unacceptable.

Note-1 : Absorbance/ reflectance/ transmittance are affected by surface characteristic features of the substrate. Therefore, comparison should be made between samples of the same type i.e. identical fabric construction parameters and filament/ fiber composition.

Note-2 : Test should be carried out after proper conditioning as per AATCC 173.

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Table 2: Specification of colour of Tie

(Guideline of AATCC Test Method 173 : 2015 & AATCC Evaluation Procedure-7:2015)

Colour	:	Sky Blue
System	:	CIE LCH
Illuminant Observer	:	D-65
Standard Observer	:	10 Degree

Tristimulus Values :

X	Y	Z
12.627	**16.862**	**42.533**

LCH :

L	C	H
48.085	**41.973**	**240.180**

CMC (l:c) : 2:1

Colour Difference, ΔE_{cmc} : $\leq$ 1.2

Interpretation of Results :

i) If ΔE_{cmc} is less than or equal to 1.2, then the sample is acceptable.
ii) If ΔE_{cmc} is greater than 1.2, the sample is unacceptable.

Note-1 : Absorbance/ reflectance/ transmittance are affected by surface characteristic features of the substrate. Therefore, comparison should be made between samples of the same type i.e. identical fabric construction parameters and filament/ fiber composition.

Note-2 Test should be carried out after proper conditioning as per AATCC 173.

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Table 2: Specification of colour of Tie

(Guideline of AATCC Test Method 173 : 2015 & AATCC Evaluation Procedure-7:2015)

Colour	:	Off White
System	:	CIE LCH
Illuminant Observer	:	D-65
Standard Observer	:	10 Degree

Tristimulus Values :

X	Y	Z
57.444	**59.434**	**54.877**

LCH :

L	C	H
81.530	**8.664**	**71.459**

CMC (l:c) : 2:1

Colour Difference, ΔE_{cmc} : ≤ 1.2

Interpretation of Results :

i) If ΔE_{cmc} is less than or equal to 1.2, then the sample is acceptable.
ii) If ΔE_{cmc} is greater than 1.2, the sample is unacceptable.

Note-1 : Absorbance/ reflectance/ transmittance are affected by surface characteristic features of the substrate. Therefore, comparison should be made between samples of the same type i.e. identical fabric construction parameters and filament/ fibre composition.

Note-2 Test should be carried out after proper conditioning as per AATCC 173.

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ANNEXURE-A

LIST OF REFERRED STANDARDS

Sl. No	Standard Number	Title
01	IS 1963 : 1981 (RA 2018)	Methods for Determination of Threads per Unit Length in Woven.
02	IS 1964 : 2001 (RA 2022) Method A	Methods for Determination of Mass per Unit Length and Mass per Unit Area of Fabrics.
03	IS 667:1981 (RA 2022)	Methods for Identification of Textile Fibres.
04	IS 3416:1988 (RA 2022)	Method for quantitative chemical analysis of mixtures of polyester fibres with cotton or regenerated cellulose.
05	IS/ISO 105 C10: 2006	Textiles - tests for colour fastness, Part C10 colour fastness to washing with soap or soap and soda.
06	IS/ISO 105 E04: 2013	Textiles — Tests for Colour Fastness Part E04 Colour Fastness to perspiration.
07	IS 3442: 2023	Textiles Method for determination of crimp and linear density of yarn removed from fabric.
08	IS 4681 : 1981 (RA 2018)	Method for determination of recovery from creasing of textile fabrics by measuring the angle of recovery.

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Approved/Not Approved

12/7/24

Anish Dayal Singh, IPS
Director General, CRPF