


Central Ordnance Depot  
Rawalpindi  
Telephone:- 051-5585165  
0331-5763789  
0319-9436032  
Tender/10/RPD/LP  
10 Sep 2024

To: PPRA Islamabad

Subject: **Request for Amendment in Opening Date of Tender No 10**  
**(UNMSN FY 2024-25)**

Central Ordnance depot letter number Tender 10 (Clothing Items) dated 29 Aug 2024 reference.

1. It is intimated that Tender No 10 (SSG Clothing Items FY 2024-25) is avail on PPRA website with opening date of *13 September 2024* vide ID **TS546550E**. Due to some technical reasons, opening date of subject tender is required to be extended.
2. Therefore, please extend opening date of said tender on *24 September 2024 at 1100 hrs* instead of **13 September 2024**.
3. Your cooperation in this regard will be highly appreciated, please.

  
Lt Col  
LPO  
(Naqeeb ur Rahman)

**Annexure A**

**PROCUREMENT OF ITEMS 10 SSG ITEMS FINANCIAL YEAR 2024/25 COD RWP**

Ser	Nomenclature	A/U	Qty	Rate	Remarks
3.	Vest Men's Cotton Knitted Half Sleeves	Nos	6000		Technical are Pasted Below

**MATERIAL AND COMPONENTS**

**VEST MEN'S COTTON KNITTED HALF SLEEVES FOR SSG**

Ser	Parameters	Std/Method	Specified	
19.	GSM	ASTM D-3776	200 ± 10gm	
20.	No of Wales /25mm	ASTM D-8007	32 ± 1	
21.	No of Courses /25mm		34 ± 1	
22.	Fabric Type	Visual Examination	Knitted (interlock)	
23.	Shade	AATCC - 173	Spectral Values-Approved as per SSG Ltr (att Anx 'C')	
24.	<b>Shrinkage %</b>			
	c. Length	ISO-7771	5% (Max)	
	d. Width		5% (Max)	
25.	<b>Count of yarn</b>	ASTM D-861	29. Tex ± 3%	
26.	<b>Material</b>	AATCC-TM-20A	100 % cotton	
27.	<b>Washing Test No.3</b>			
	d. Change in Shade	ISO-105C:10	GS No.4 or Better	
	e. Staining on Cotton		GS No.4 or Better	
	f. Staining on woolen		GS No.4 or Better	
28.	Dye Fastness to light	PS-1337B	Class-IV	
29.	<b>Perspiration (Acidic /Alkaline)</b>			
	d. Change in Shade	ISO-105	GS No.4 or Better	
	e. Staining on Cotton		GS No.4 or Better	
	f. Staining on woolen		GS No.4 or Better	
30.	Nature of dye	Chemical Analysis	Vat dye	
31.	Scoring loss %	Chemical Analysis	2% (Max)	
32.	Width of Welt at Neck		2.54 cm Wide	
33.	Lycra at neck Welt		3%	
34.	No of Stitches/25mm		9 to 11	
35.	<b>Tape Textile</b>		<b>At Shoulder seam</b>	<b>At Back of Neck</b>
	a. Width	Visual Examination	5mm	10mm
	b. Wt per linear Mtr	ASTM D-3776	1.5 gms	5.5 ± 0.5 gms
	c. No of Thread	ASTM d-3775		
	(1) Warp full width		14 each 2	27 Singles

			folds	
	(2) Weft 25mm		19/20 Double each fold	23 (2 folds each single)
	d. Average Breaking Strength (Between Grip 61 cm)	ASTM D-5035	11.5 ± 0.5 Kg	25 ± 2 kg
	e. Shade	ASTCC-173	Spectral Values-approved as per SSG Itr (Att Anx'C')	
	f. Material	AATCC-TM-20	Cotton	
36.	<b>Sewing Thread Polyester for stitching / Over Locking/ Flat Locking</b>			
	m. Material	AATCC-TM-20A	100 % Polyester	
	n. BS (61 cm BG) o. RH 65% at 21°C	ASTM D-5035	1.25 Kg	
	p. Nature of Dye	Chemical Analysis	Disperse Dye	
	q. <b>Washing – 3</b>			
	(4) Change in Shade	ISO-105C:10	GS No.4 or Better	
	(5) Staining on Cotton		GS No.4 or Better	
	(6) Staining on Woolen		GS No.4 or Better	
	r. Dye Fastness to light	PS-1337B	Class-IV or Better	
	s. Substrate	By Chem	Staple Spun Polyester	
	t. Shade	ATTCC-173	Spectral Values-approved as per SSG Itr (Att Anx'C')	
	u. Construction		3 Cords each single	
	v. Count	ASTM D-861	3/11.8 Tex (3/50 <sup>s</sup> ) ± 3%	
	w. Direction	Visual	S/Z	
	x. Balance of Twist	Visual	6.7	
37.	<b>Velcro Tape 4cm (Male/ Female) Used for Name Plate</b>			
	a. Material b. (Male/ Female)	AATCC-TM-20A	Nylon	
	c. Width	Measurement Scale	4 cm	
	d. Wt/Linear mtr	Balance	24 ± 1 g	
	e. Hot Ironing Test	Chemical Analysis	No Visible Change	
	f. Colour	AATCC 173-2009	Spectral Values-approved as per SSG Itr (Att Anx'C')	

	<b>g. Performance/ Quality</b>		<b>Satisfactory</b>
	(1) Before Sticking/ unnoticing 200 times at 300g	Visual	
	(2) After sticking/ unnoticing 200 times at 300g		
	<b>h. Washing - 3</b>		
	(1) Change in Shade	ISO-105C:10	GS No.4 or Better
	(2) Staining on Cotton		GS No.4 or Better
	(3) Staining on Woolen		GS No.4 or Better
	<b>Name Plate</b> Vest Half Sleeves shall be issued to tps with black stick-on cloth name plate and rank/name shall be embroidered under / indl's arrangements as being done in case of CCS name plate		
38	a. Length of Name Plate	Visual Inspection	10.5 cm
	b. Width of Name Plate		4 cm
	c. Ht of each Ltr		1 cm
	d. Width of each Ltr		0.2 cm
	e. Width of black border all around		0.3 cm
39	<b>Carton Card Board</b>		<b>Use for packing</b>
	h. No of plies		07 Nos
	i. Wt/sq mtr		
	(1) Outer Paper Ply		180 ± 5 gm
	(2) Inner paper ply		180 ± 5 gm
	(3) Corrugated paper		120 ± 5 gm
	j. paper Pated with Corrugated Sheet		120 ± 5 gm
	k. Gauge of Stapler Pin		22 SWG
	l. Thickness of Pin		2 mm
40.	<b>Plastic Hoops</b>		<b>Use for Packing</b>
	f. Material		Plastic
	g. Width		1.3 cm
	h. Thickness		0.68-0.86 mm
	i. BS (BG 7")		87 ± 5 Kg
	j. Wt per linear mtr		6.8 ± 0.5 gm
41.	<b>Tin Stopper</b>		<b>Use for Packing</b>

	f. Material		Mild Steel Tin Coated
	g. Length		1.3 cm
	h. Width		0.68-0.86 mm
	i. Height		87 ± 5 Kg
	j. Thickness		6.8 ± 0.5 gm
42.	<b>Tape Adhesive</b>		<b>Use for Packing</b>
	f. Length		66 mtrs
	g. Width		10 cm
	h. Thickness		0.04 to 0.05mm
	i. Adhesion		Satisfactory
	j. Adhesion Tape 10 cm wide		Shall be used for sealing the opening of Carton Card
43.	<b>Polythene Sheet / Polythene Bags</b>		<b>Use for Packing</b>
44.	Thickness (Polythene Sheet)		66 Mtrs
45.	Thickness (Polythene Bag Large / Small)		10 cm

### SIZE CHART

#### VEST MEN'S COTTON KNITTED HALF SLEEVES FOR SSG (LIGHT GREEN)

Ser	Description		Size (cm)				Tolerance
			Small	Medium	Large	Extra Large	
1.	Overall length	A.	71	73	76	78	±1
2.	Round Bottom	B.	96	101	106	112	±1
3.	Round Chest	C.	96	101	106	112	±1
4.	Across Shoulder	D.	42	46	50	54	±1
5.	Sleeve Width at End	E.	17.5	19.5	20.5	22.5	±0.5
6.	Width of Neck at back	F.	11.5	12	12.5	13.5	±0.5
7.	Length of Sleeve	G.	20	21	22	23	±0.5
8.	Sleeve Width at Arm Hole	H.	22	23	25	26	±0.5
9.	Depth of Neck at	J.	6.5	7.5	8	8.5	±0.5

Front						
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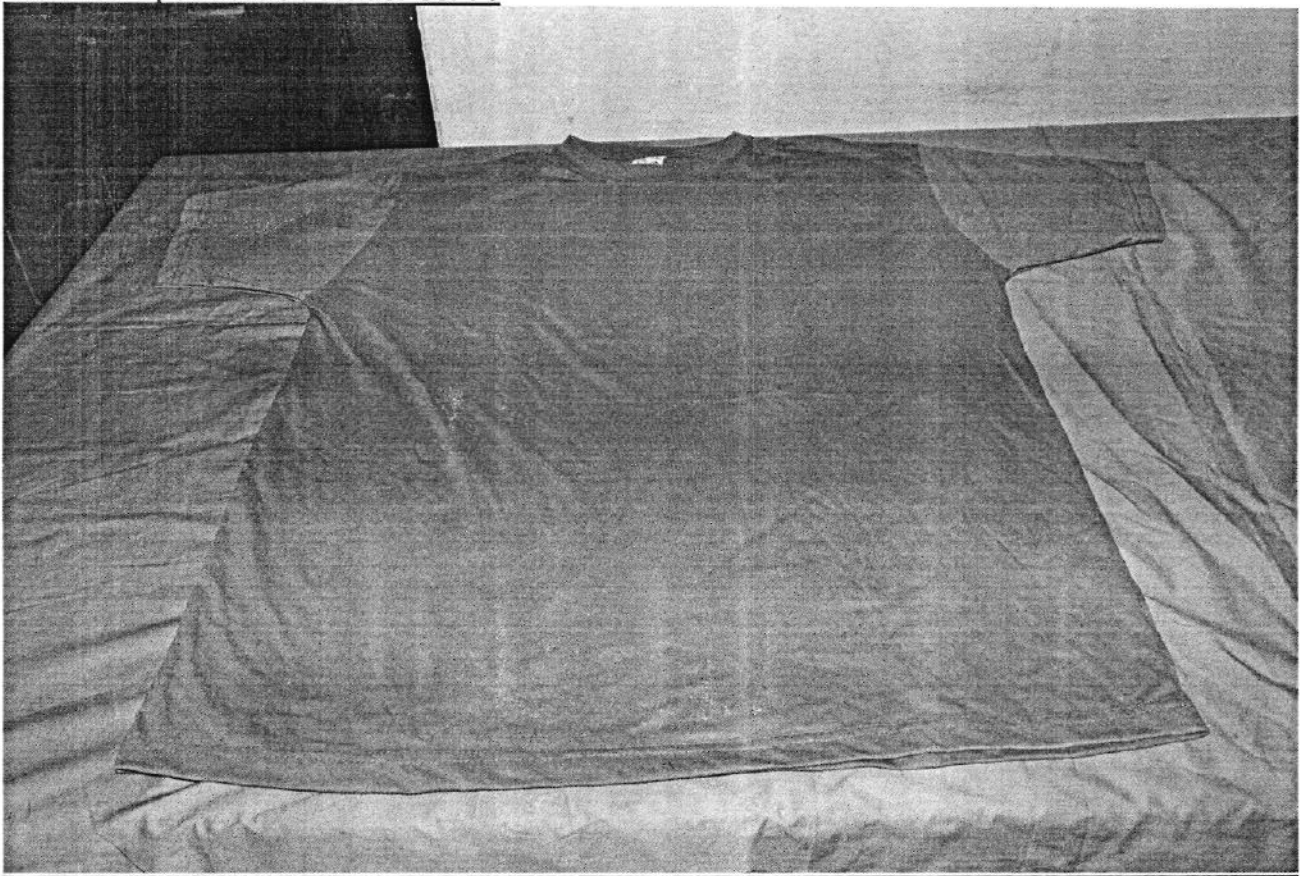
**SPECTRAL VALUES FOR STANDARDIZATION OF SHADE**

**VEST MEN'S COTTON HALF SLEEVES – SSG**

**STD SSG – LIGHT GREEN**

400-450nm	14.72	14.71	14.39	13.93	13.50	13.56
460-510nm	13.73	13.97	14.26	14.91	15.85	17.18
520-570nm	19.21	21.86	24.04	25.38	25.97	25.82
580-630nm	25.52	25.16	24.79	24.36	24.00	23.95
640-690nm	24.53	25.95	27.39	28.40	28.93	29.04
700nm	29.21					

**Technical Specification Tender Ser : 3**



Central Ordnance Depot  
Rawalpindi  
Telephone : 051-5585165  
0331-5763789  
0319-9436032  
10 / Normal / 2024-25  
29 Aug 2024

Subject: **Invitation to Tender and General Instructions for Procurement of SSG Clothing Items (FY- 2024/25)**

1. This Invitation to Tender/Bid (here in after referred to as IT), follows the Procurement on the subject, with following time lines:-

- a. Date and time of closing of this IT is **13 Sep 2024 at 1030 hours**.
- b. Date and time of opening of bids/IT Documents offered in response to this IT is **13 Sep 2024 at 1100 hours** in Conference Room of Central Ordnance Depot Rawalpindi (COD Rwp), Fort Road, Rawalpindi with representatives of bidders in attendance.

2. Sealed Bids are invited (in line with Single Stage, Two Envelop Process as specified in PPRA Regulations) from Original Equipment Manufacturers (OEMs), Agents of OEMS, authorized distributors and suppliers, which are registered with Income Tax & Sales Tax Departments, on Active Taxpayer List (ATL) of Federal Board of Revenue (FBR) and Registered with Directorate General Defense Purchase (DGDP) / Directorate General Procurement-Army (DGP-A) / Any Ordnance Depots of Pakistan Army and Pakistan Engineering Council (PEC) for supply of items as under:-

- a. **Schedule of Requirements** is given at **Annexure A**.
- b. **Instructions for Bidders and Terms / Conditions of Bidding and Purchase** are given at **Annexure B**.
- c. Format of **Vendor Profile / Qualification Documents** is given at **Annexure C**.
- d. Format of **Financial Proposal** is given at **Annexure D**.
- e. Format of **Technical Proposal** and technical specifications of required stores/goods/equipment for relevant stores/goods/equipment are given at **Annexure E**.
- f. Bids are to be submitted in two separate sealed envelopes, clearly marked on the outside in bold letters as **“TECHNICAL PROPOSAL - IT FOR PROCUREMENT OF ORDNANCE STORES NUMBER 10/NORMAL/2024-25”** and **“FINANCIAL PROPOSAL - IT FOR PROCUREMENT OF ORDNANCE STORES NUMBER 10/NORMAL/2024-25”** along-with name of bidding firm / entity. For ease of consolidation / identification, both the envelopes may be placed in another/outer envelope clearly marked on the outside in bold letters with subject of this tender and name of bidding firm / entity.
- g. **Vendor Profile / Qualification Documents** as per details mentioned at **Annexure C**, must be submitted in separate envelop (separate from both the Technical and Financial Proposals), clearly marked on the outside in bold letters as **“VENDOR’S PROFILE / QUALIFICATION DOCUMENTS – IT FOR**



**PROCUREMENT OF ORDNANCE STORES NUMBER 10/NORMAL/2024-25"**

along-with name of bidding firm/entity.

- h. **IT Documents** along-with original hard-copies of **Financial Proposal, Technical Proposal** and **Vendor Profile / Qualification Documents** properly filled in, and enclosed in separate sealed envelope(s) as mentioned above, along-with digital-copies on separate CDs/DVDs packed in respective envelopes, must be delivered to Central Ordnance Depot Rawalpindi, Fort Rd, Rawalpindi Cantonment, before **1030 hrs on 13 Sep 2024**.
  - i. Failure to submit complete documents / details as asked **OR** failure to submit Technical Proposal, Financial Proposal and Vendor Profile / Qualification Documents in separate sealed envelopes is liable to cause outright rejection of bid.
  - j. **Bid Security equal to 5% of estimated bid value** is to be deposited within five working days of intimation from / asking by COD Rwp, failing which bids are liable to be rejected.
  - k. Procurement is planned within Current Financial Year (CFY) either in full or in part. Quantities can be amended/ decreased at the time of placing the order.
  - l. Along with tender, each firm will deposit **Rs 4000/-** as Tender Fee (in the shape of CDR, Pay Order or Cross Cheque). Same will be prepared in the name of Comdt COD Rwp.
3. All bidders are bound by Official Secret Act to ensure confidentiality of bids and purchases of Security Equipment and not share information / details of bid/contract/quantities/delivery locations with anyone not party to the bid / purchase.
  4. Complete Set of IT Documents can be obtained from **Local Purchase Office**, COD Rawalpindi, Fort Road, Rawalpindi (**Telephone : 051-8770950, 0344-6019215**) on any working day between 0830 hrs and 1530 hrs.

Lieutenant Colonel  
Local Purchase Officer  
(Naqeeb Ur Rahman)

**SCHEDULE OF REQUIREMENTS****PROCUREMENT OF ORDNANCE STORES TENDER NUMBER 06 NORMAL FINANCIAL  
YEAR 2024/25 – COD RWP****Special Instructions:-**

1. Participating firms will provide 3 advance samples of each item for testing through IAS&C / ASIDs.
2. After approval of samples, firm will be shortlisted for procurement.
3. In case of non-provision of samples quote will be technically rejected.
4. Commercial offers of those firms will be opened for which samples have been accepted by IAS&C / ASIDs.
5. The quantities of items may vary at the time of award of contract.

<b>Ser</b>	<b>Nomenclature</b>	<b>A/U</b>	<b>Quantity</b>	<b>Remarks</b>
1.	Fd Jacket Multicam Pixilate Paint and Pattern for SSG	Nos	2000	Tech specs pasted below
2.	Combat Shirt (Multicam Pattern) for SSG	Nos	2000	

**INSTRUCTIONS FOR BIDDERS AND TERMS / CONDITIONS OF BIDDING AND  
PURCHASE**

**TENDER NUMBER 10 / NORMAL / 2024-25**

**Instructions For Bidders**

1. **Eligible Bidders.** A Bidder submitting bid/tender in response to this IT may be a person / Sole Proprietor, a Company or Firm or Agency (Private, Limited, Public or Semi-Public) having one or more than one owners/partners and must be registered in Pakistan. Detailed requirements as under:-
  - a. Bidder must be Original Equipment Manufacturers (OEMs), Agents of OEMS, Authorized Distributer or Supplier and must be registered with Income Tax & Sales Tax Departments and on Active Taxpayer List (ATL) of Federal Board of Revenue (FBR). Documentary proof for all of this must be provided.
  - b. Must be registered with Directorate General Defense Purchase (DGDP) / Directorate General Procurement-Army (DGP-A) / DP-Navy / DP-Air / Any Ordnance Depot of Pakistan Army and Pakistan Engineering Council-PEC.
  - c. Must be incorporated or licensed by the respective incorporating agency or statutory body established in Pakistan for its particular trade or business.
  - d. Must not quote more than one rate for an item of identical brand / specs / quality.
  - e. Must provide complete details and documentation as specified in Vendor Profile / Qualification Data format given at **Annexure D**.
  - f. Must not be Blacklisted, bankrupt, insolvent, debarred due to involvement in corrupt and fraudulent practices, subject of any performance failure in Contracts / Agreements / Purchase-Orders from above mentioned procurement organizations.
  - g. Must submit bid security as specified in this IT with-in the timeline specified.
  - h. Must provide evidence of their eligibility, capacity, capability to perform and deliver the goods / services being contracted and must provide proof of compliance with the necessary legal and procedural requirements to carry out the contracted work effectively.
  - i. Must declare in IT documents details relating to the nature, conditions and modalities of sub-contracting by bidder (if planned / envisaged by the bidder), wherever such sub-contracting of any elements of the bid is amounting to the more than ten (10) percent of the bid value for such element.
  - j. Must provide proof of relationship with OEM or foreign principal and/or copy of Master Level/Service Agreement with such OEM or foreign principal in case of imported items.
  - k. Must provide valid proof in IT Documents that bidder has the financial, technical, installation and supply / production capability necessary to perform the Contract / Framework Agreement.

## 2. Preparation and Submission of Bid / Tender Documents

- a. Complete set of forms and documents as per the given format and requirements mentioned at **Annexure E** shall be submitted as “**Technical Proposal**” in two hard-copies on bidding firm’s letter head and one digital-copy on CD/DVD duly packed in a sealed envelope clearly marked in bold letters on outside of envelope “**Technical Proposal – IT For Procurement of Ordnance Stores Number 10/Normal/2024-25**” along-with name of bidding firm / entity.
- b. Complete set of forms and documents as per the given format and requirements mentioned at **Annexure D** shall be submitted as “**Financial Proposal**” in two hard-copies on bidding firm’s letter head and one digital-copy on CD/DVD duly packed in a sealed envelope clearly marked in bold letters on outside of envelope “**Financial Proposal – IT For Procurement of Ordnance Stores Number 10/Normal/2024-25**” along-with name of bidding firm / entity.
- c. Complete set of forms and documents as per the given format and requirements mentioned at **Annexure C** shall be submitted as “**Vendor’s Profile / Qualification**” in two hard-copies on bidding firm’s letter head and one digital-copy on CD/DVD duly packed in a sealed envelope clearly marked in bold letters on outside of envelope “**Vendor’s Profile / Qualification Documents - IT For Procurement of Ordnance Stores Number 10/Normal/2024-25**” along-with name of bidding firm / entity.

## 3. Contents of IT Documents and Eligibility of The Bids.

- a. The bidder is expected to obtain complete IT Documents and their addenda from COD Rwp and examine all instructions, forms, terms and specification mentioned in such documents. Failure to furnish all the information required in the IT Documents will be at the Bidder’s risk and may result in the rejection of his Bid.
- b. Bid / IT Documents prepared by the bidder, as well as all correspondence and documents relating to it shall be written in the English language. Supporting documents, brochures, printed- literature furnished by the Bidder, if in any another language must be accompanied by a certified accurate translation of the relevant pages in the English language.
- c. The bid / IT Documents will be considered valid for consideration if it constitutes following components. Any violation of these aspect may render the submitted bid / IT Documents liable to rejection:-
  - (1) Financial Proposal and Price Schedule as per format given at **Annexure E**, duly printed on company/firm’s letter head and signed by authorized signatory. Bidder must fill the f o r m without any alterations to its format.
  - (2) All items must be listed and priced separately. In case of no bid against any item, **NO BID** shall be printed in the price colum. If any item/accessory is not listed/ priced by the bidder, its price shall be construed to be included in the prices of other items.
  - (3) Unit price as well as total price of item must be inclusive of all applicable taxes, duties, levies and inclusive of cost of transportation, insurance and other related expenses for delivery of goods to their final destination.

- (4) Rate of each item must be quoted exclusive of other items listed in the tender and the purchaser will have the liberty to accept bid of one or all of the items quoted and for complete or partial quantity of any item(s). The price quoted should not be contingent upon award of contract for a specific/full quantity of the item and/or award of contract for all items listed in Schedule of Requirements collectively from the same bidder.
- (5) Rates / Prices quoted must be valid till 30 June 2025 (for acceptance of bid / award of contract) and till completion of complete delivery of all contracted items (after the framework agreement / Purchase-Order is awarded).
- (6) Prices / rates must be quoted in Pak Rupees, for delivery of goods/equipment at Rawalpindi and must be inclusive of all applicable taxes, duties and FE conversion rates where applicable.
- (7) Bidder must accept to receive Purchase Orders against the framework agreement concluded after acceptance of his bid, from multiple Ordnance Depots / Central Ordnance Depot across Pakistan. Payment against goods / equipment delivered in response to the above mentioned Purchase Orders will be via Contingent Bills submitted by depots to their respective CMAs (Controllers of Military Accounts) offices spread across Pakistan. Subsequently, CMAs will issue cheques directly in favor of the contractor to the Bank Branch / Account Number mentioned in framework agreement / Purchase Orders. Bidder must be able to establish liaison with all concerned CMA Offices for clarification of their queries on contingent bills (if any)
- (8) IT documents must be accompanied by Duly Notarized Power of Attorney authorizing the signatory of IT Documents to submit the bid and all other relevant clarification / contractual documents on behalf of Bidder Firm/Company/Entity.
- (9) Technical Proposal / Vendor's Profile / IT Documents must include documentary evidence established in accordance with contents of this IT to prove that the Bidder is eligible and/or qualified for the subject bidding process.
- (10) Technical Proposal / Vendor's Profile / IT Documents must include documentary evidence established in accordance with contents of this IT to prove that that the Bidder is authorized by the manufacturer to deliver the goods / eqpt at designated locations in Pakistan (where ever applicable and when the supplier is not the manufacturer of those goods).
- (12) Technical Proposal / Vendor's Profile / IT Documents must include documentary evidence established in accordance with contents of this IT that the goods and related services to be supplied by the Bidder are eligible goods/ equipment, and conform to the technical and specification requirements specified in this IT.
- (13) Bid Security must be furnished in full by the bidder within five days of asking / intimation by COD Rawalpindi and before opening of Commercial Offer.
- (14) Valid samples must be provided at the place, time and in quantities as asked by COD Rwp during evaluation of Technical Proposals. Such samples may undergo destructive and non-destructive testing by Inspection Agencies of Pakistan Army without any liability for cost of items/equipment.

- (15) Bid must be received on or before the closing date and time as specified in this IT.
  - (16) Any other document, asked by COD Rwp during the process of evaluation / scrutiny of bids, must be delivered within the time indicated by COD Rwp.
- d. Documentary evidence of the eligibility of goods shall consist of:-
- (1) Statement in the Commercial Offer, declaring country of origin of the goods which must be confirmed later by a certificate of origin issued at the time of shipment of equipment / items after award of framework agreement / PO.
  - (2) Documentary evidence of conformity of the goods to the IT Documents may be in the form of literature, drawings, and data, and shall consist of:-
    - (a) Detailed description of the essential technical specifications and performance characteristics of items offered.
    - (b) Item-by-item commentary on COD Rwp's Technical Specifications demonstrating substantial responsiveness of the items to such specifications. A statement of deviations and exceptions to the provisions of the Technical Specifications of equipment mentioned in this IT must be provided where applicable.
    - (c) Any other documentation asked by COD Rwp during scrutiny of the Bid / Technical Offer.

#### **Terms and Conditions Governing Bidding and Subsequent Award / Purchase**

##### **4. Bid Security / Guarantee**

- a. Bid Security equal to 5% (Five Percent) of the estimated bid amount, must be furnished by bidder within five days of asking/intimation by COD Rwp. The verifiable Bank Guarantee will be the payment instrument in favor of Commandant Central Ordnance Depot Rawalpindi.
- b. Bid Security is required to protect COD Rwp against the risk of Bidder's conduct from date of opening of Commercial Offer till award of contract, which may warrant the security's forfeiture. The security amount will stand forfeited in favor of COD Rwp, in case of any violation by bidder of the IT conditions and agreements, reached during clarifications/negotiations on Technical Offer (including but not limited to, withdrawing the bid before expiry of its validity period, refusal to accept correction of errors in bid submitted by him, refusal to sign the contract if declared successful bidder, refusal to deposit Performance Security etc).
- c. Successful bidder's Bid Security will be returned onto him after his signing of the framework- agreement and furnishing the Performance Security. Unsuccessful bidders Bid Security will be returned onto them after signing / award of framework-agreement to successful bidder.

##### **5. Performance Security / Guarantee**

- a. If bid (including financial and technical proposals as modified) is accepted, the bidder will be bound to deposit Performance Security / Guarantee equivalent to 10% (Ten Percent) of the award amount within five working days of provision of

Letter of Acceptance/ Letter of Intent. The payment instrument for submission of Performance Security/Guarantee will be Verifiable Bank Guarantee.

- b. Failure of the successful Bidder to comply with this shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security.
- c. Total amount of Performance Security / Guarantee shall be returned to the vendor on completion of all deliveries against the award.

6. **Advance Payment Security / Guarantee**

- a. No advance payment shall be made. However, if any Advance Payment is required to be made to the bidder after award of contract / framework-agreement, bidder must be capable of furnishing Security in amount equal to the advance paid as a verifiable Bank Guarantee.
- b. Inability of the bidder to furnish Advance Payment Security/Guarantee shall constitute sufficient grounds for annulment of the award and forfeiture of Performance Guarantee.

7. **Warranty Period**

- a. All goods / equipment offered by bidder must be under **Warranty Guarantee** from date of delivery for a period of **1 year** less item in appendix I ser 1 to 2.
- b. In **Technical Proposal**, bidder must specify OEM's Warranty with duration and submit documentary proof, bidder's own warranty (if applicable) and explain the mechanism for claiming / execution of warranty.

8. **Opening of Bids / Tenders.**

- a. Bids will be opened on **13 Sep 2024** at 1100 hrs in Conference Room of COD Rawalpindi in presence of representatives of bidders. Single Stage Two Envelope Procedure as specified in PPRA Rules, will be followed for opening of the bids.
- b. To be eligible for consideration & opening the Bids/ IT Documents must comprise of two envelopes submitted simultaneously, one being the "**Technical Proposal - IT For Procurement of Ordnance Stores Number 10/Normal/2024-25**" and the other being "**Financial Proposal - IT For Procurement of Ordnance Stores Number 10/Normal/2024-25**". Both these envelopes must be sealed separately and then enclosed together in an outer single sealed-envelope which shall be addressed to Commandant Central Ordnance Depot Rwp, Fort Rd, Rawalpindi Cantt. The outer envelope must have a written warning mentioned on it as "**Not to be opened before 13 Sep 2024 at 1100 hrs**" to obviate any chance of opening mistakenly.
- c. A third sealed envelope clearly marked in bold letters on outside of envelope "**Vendor's Profile / Qualification Documents - IT For Procurement of Ordnance Stores Number 10/Normal/2024-25**" must be submitted to process registration data of the vendors in computer systems and to facilitate entry of bidder's representatives inside COD Rwp / User Premises. This envelope should not include any documents/material other than Vendor's Profile / Qualification and warning "**Not to be opened before 13 Sep 2024 at 1100 hrs**" should not be mentioned on this envelope.

- d. Commandant COD Rwp may reject any or all bids / tenders at any time prior to the acceptance of a bid / tender. COD Rwp shall, upon the request, communicate to any vendor / supplier who submitted a bid / tender, the grounds for its rejections, but is not required to justify those grounds.
- e. If the envelopes are not sealed and clearly marked as required or incorrectly marked, COD Rwp will assume no responsibility for misplacement, premature opening or rejection of bid / IT Documents.

9. **Amendments To and Clarifications About IT Documents**

- a. Before the deadline for submission of Bids, COD Rwp for any reason, whether at its own initiative or in response to external requirement/ compulsion may modify the IT Documents by issuing addenda which shall be published on PPRA Website. All such addenda, including any notice for extension in deadline for submission of bids, shall become integral part of this IT Document.
- b. Information of all addenda, clarifications, extension in bid submission date etc will also be communicated by COD Rwp, via telephone / cell-phone-message to prospective bidders who have obtained IT Documents from COD Rwp, at the contact number given by them at the time of obtaining of documents. All bidders are responsible for correctness of contact numbers given and their serviceability / availability to receive such calls/text messages.
- c. A prospective bidder requiring any clarification about IT Documents may contact COD Rwp at above mentioned address / telephone numbers and response shall be provided within three working days, provided such request for clarification is received not later than three-days-prior to last date of submission of bids.

10. **General Conditions**

- a. Invitation to Tender and/or acceptance of Bids is not to be considered as commitment to purchase on part of COD Rawalpindi. Commandant COD Rawalpindi reserves the right to reject any/ all of the offers without assigning any reason or to enter into framework agreement / issue Purchase Orders to bidders in part thereof. Decision of Commandant Central Ordnance Rawalpindi will be final in respect of acceptance/ rejection of the bids.
- b. All samples and supplies will be subject to test and inspections either by concerned inspectorates or a board of officers constituted for the purpose and any cost incurred on test/ inspections and stores consumed in the same will be borne by suppliers. COD Rwp reserves the right to demand as well as test/ inspect the sample (including destructive testing) at any time before placing of purchase orders.



- c. Successful bidders will have to complete the supplies within period as specified in the contract/ purchase orders, failing which appropriate penalty as decided by commandant Central Ordnance Depot Rawalpindi may be imposed and necessary / appropriate disciplinary action may also be taken.
- d. During warranty period, if fault occurs in supplied stores, then supplier will be responsible to either rectify the faults communicated or get the faulty items/ assys/parts replaced with in 30 days of receipt of written information (including information, communicated through digital means) in this regard from the purchaser at the specified place which may be other than the place where the stores were earlier delivered. Detailed instructions regarding warranty will be covered in Framework-Agreement / Purchase Order. In case supplier fails to rectify the faults or replace the faulty parts in a specified time than purchaser will have the right to take disciplinary action against the supplier and also impose penalty if considered necessary/ appropriate.
- e. Bid samples and stores offered should be brand new, unused, as per approved specifications, drawing and stock-samples of purchaser in form, fit and function.
- f. In case of an item that has no approved sample available with COD Rwp, then a board of officers appointed for the purpose will evaluate the samples together with Technical Proposal documents decide on acceptance.
- g. Complete nomenclature, OEM, model, brand, country of origin and list of accessories accompanying the item/ stores must be mentioned in technical / financial proposals.

### **Annexure C**

#### **VENDOR PROFILE / QUALIFICATION INFORMATION**

##### **COD RWP IT NUMBER 10 / NORMAL / 2024-25**

1. Bidders Name:  
(Name of Company / Firm / Business as indicated in registration documents must be mentioned)
2. Bidders Principal Telephone Contact  
(An active land-line and/or cell number must be provided. All messages related to bidding and subsequent contract / Purchase Orders will be communicated through this contact number. Bidder retains all responsibility for missing any communication due to non-availability or no response from the given number)
3. Type of Business / Company / Firm:  
(Please declare and specify whether Govt, Semi-Govt, Private, Limited, Partnership / Cooperative, JV, Consortium and whiter listed on Stock Exchange or otherwise. Documentary proof must accompany the declaration).
4. Owner / Owners :  
(CNIC No, Copy of CNIC, Position/Appoint Title within the organization structure of Company/ Firm, Name, Father's Name and in case of multiple owners / partners, information and documentation for all must be provided)

5. Chief Executive  
(CNIC No, Copy of CNIC, Position/Appoint Title within the organization structure of Company/ Firm, Name, Father's Name must be provided)
6. Person Authorized to Sign Bid / IT Documents, Contracts and All Related Correspondence.  
(Name, CNIC, Contact Number of the person authorized by the company/firm/entity to sign the Bid / IT Documents must be mentioned and an Authority Letter in shape of Notarized Power of Attorney signed by owner (by all partners in case business is owned by multiple owners/partners) authorizing such person to sign and submit bids/IT Documents, contracts and affiliated correspondence on behalf of the company/firm/entity must be provided)
7. Photograph and Copies of CNICs of Owners, Partners, CEO, Directors of the Firm / Company / Entity and Authorized Persons for signing the bids (duly attested) must be provided.
8. Total Employees / Staff in the Business / Company / Firm.  
(List of Names of Staff of Business / Company / Firm Staff other than Owner, Partner, CEO, Directors and mention their Name, Address, CNIC No, Contact No and Appointment within the organization. Govt entities are not required to provide this information)
9. Year of Establishment of the Business / Company / Firm.
10. Year of Incorporation of the Business / Company / Firm.
11. Principal Field of Business of the Company / Firm.
12. Physical Address of the Business / Company / Firm.  
(Mention all addresses, if offices / facilities are located at more than one location. Indicate whether the Offices / Facilities are located on Owned Land or Leased. In case of Owned Landed provide documentary proof of ownership and in case of lease / rent provide copy of rent/lease agreement. Govt entities are not required to provide such proof documents)
13. Email Address and Website of the Company / Firm / Entity.
14. NTN Registration No. (Must Attach Copy of NTN Registration/Certificate)
15. GST Registration No. (Must Attach Copy of NTN Registration/Certificate)
16. SECP Registration No. (Must Attach Copy of NTN Registration/Certificate)
17. PEC Registration No. (Must Attach Copy of NTN Registration/Certificate)
18. DGDP, DGP(Army), DP-Navy, DP-Air, Any COD / Ordnance Depot registration (Proof and supporting document must be provided and items / equipment for which indexed / registered must be mentioned)
19. Income Tax and GST Returns of Last Three Years (Showing Complete Details).
20. Proof of being Active Taxpayer on ATL of FBR.
21. Annual Revenue of the Firm / Company / Business
22. Bank Branch, Branch Code, IBAN Account Number  
(Required for Registration and Subsequent Billing. In case of multiple banks/accounts, mention each separately)
23. Bank Statement showing last one year transactions and current balance (in case of multiple accounts, submit separate statements for each account)
24. List of Projects Undertaken by the Business / Company / Firm in last three years and dates of their award and completion.
25. Details of Previous Experience of Working With DGDP, Army/Navy/Air force, FC (KP), FC (Balochistan) and other LEAs. List the projects undertaken, provide name, appointment and contact number of officer overseeing such projects and attach documentary proof.
26. If affiliated with a foreign firm / company / principal, provide complete details of the firm/company / business and documentary proof of the relationship with the foreign principal.  
(Relationship with Foreign Principal is liable for verification by COD Rwp through Embassies of Pakistan / Attaché Defense Procurement offices abroad)

Required Details Of Foreign Firm / Principal	Remarks
Name of Firm	

Country	
Complete address of firm/ head office including contact person	
Factory(s) manufacturing facility address (if applicable)	
Firm Profile / Web Address / Email	
Liaison office/ supporting firms address in Pakistan	
Details of Works/ projects already completed in Pakistan (if any)	
Designated person authorized to act on behalf of Firm (Appointment, Name, CNIC / Passport No)	
Banker(s) in Pakistan	
Registration certificate with any Defense Procurement body in Pakistan (if any)	

**Technical Specification Tender Ser: 1****MATERIAL**  
**FD JACKET MULTICAM PIXILATE PRINT AND PATTERN FOR SSG**

<b>Ser</b>	<b>Parameters</b>	<b>Specified</b>	
1.	Printed Cloth (Outer Fabric)		
	a. Material		
	(1) Cotton %	35% ± 3	
	(2) Polyester %	65% ± 3	
	b. Weave	<b>3/1 Twill</b>	
	c. GSM	<b>300 ± 10 g</b>	
	d. Count of Yarn		
	(1) Warp	<b>35 ± 2 Tex</b>	
	(2) Weft	<b>49 ± 2 tex</b>	
	e. No.of threads / 25mm		
	(1) Warp	<b>109 ± 2</b>	
	(2) Weft	<b>54 ± 1</b>	
	f. Water Repellency	Class-IV or Better	
	g. Shade / Print	Δ E CMC Beige Ground < 1.00 Δ E CMC Dark Green < 1.00 Δ E CMC Light Green < 1.00 Δ E CMC Dark Brown < 1.00 Δ E CMC Light Brown < 1.00 Δ E CMC Medium Green < 1.00	
	h. Shrinkage%		
	(1) Warp	<b>2% Max</b>	
	(2) Weft	<b>2%Max</b>	
	i. Breaking Str (2" x 6" BG)		
	(1) Warp	<b>195 kg (Min)</b>	
	(2) Weft	<b>125 Kg (Min)</b>	
	j. washing Test no.3 (All Colours)		
	(1) Change in Shade	<b>GS No.4 or Better</b>	
	(2) Staining on Cotton	<b>GS No.4 or Better</b>	
	k. Perspiration test (Acid & Alkaline)		
	(1) Change in Shade	<b>GS No.4 or Better</b>	
	(2) Staining on Cotton	<b>GS No.4 or Better</b>	
	l. Rubbing Test		
	(1) Dry	<b>GS No.<sup>3/4</sup> or Better</b>	
	(2) Wet	<b>GS No.<sup>3/4</sup> or Better</b>	
	m. Nature of dye		
	n. Khaki	Vat/Disperse	
	o. Print	Pigment	
	p. Scouring loss	<b>1%</b>	
2.	<b>Cloth Lining</b>	<b>Khaki</b>	<b>Green Fabric</b>
	a. Material		
	(1) Cotton	60% ± 3	-
	(2) Polyester	40% ± 3	100% Polyester
	b. Weave	2/1 Twill rip stop	Plain
	c. GSM	225 ± 5 g	43
	d. Count of Yarn		

	(1) Warp	29.5 ± 3 Tex	56 Denier
	(2) Weft	37 ± 3 Tex	63 Denier
e.	Threads per 25mm		
	(1) Warp	110 ± 2	90 ± 2
	(2) Weft	55 ± 2	65 ± 2
f.	Shade	Khaki	Green
g.	Shrinkage%		
	(1) Warp	1%	Nil
	(2) Weft	1%	Nil
h.	Breaking Str (2" x 6" BG)		
	(1) Warp	Insufficient Sample	40.3 kg
	(2) Weft	Insufficient Sample	25.3 kg
i.	washing Test no.3 (All Colours)		
	(1) Change in Shade	GS No.4	GS No.4
	(2) Staining on Cotton	GS No.4	GS No.4
j.	Perspiration test (Acid & Alkaline)		
	(1) Change in Shade	GS No.4	GS No.4
	(2) Staining on Cotton	GS No.4	GS No.4
k.	Nature of dye	Vat Disperse	Disperse
l.	Scouring loss	1.5%	-
3.	<b>Hood</b>	Hood Stitched as per drawing	
4.	<b>Width of Velcro tape (Male and Female)</b>	25mm & 38mm	
5.	<b>Zipper</b>	-	
	a. Material of Teeth	Plastic	
	b. Slider of Zipper	Painted Zinc alloy	
	c. Performance	Satisfactory	
6.	<b>Braided Cord</b>	<b>Used adjustment of green Liner</b>	
	a. Circumference	<b>6 – 7 mm</b>	
	b. Wt/ Linear mtr	4.4 g	
	c. Material		
	(1) Braided	Polyester	
	(2) Core	Rubber	
	d. Nature of Dye	Dope dye	
7.	<b>Sewing Thread</b>		
	a. Material	100% Polyester	
8.	<b>Snap Button</b>	For front closing and Hood	
	a. Material	Stainless Steel	
	b. Size	15mm	
	c. Colour/finish	Antique dull brass finish	

**VALUES FOR STANDARDIZATION OF SHADE**

**STD SSG BEIGE GROUND**

400-450nm	25.31	25.38	24.85	24.51	23.90	24.04
460-510nm	24.50	24.99	25.54	26.93	28.45	30.02
520-570nm	31.75	33.60	35.24	36.70	37.88	38.34
580-630	38.54	38.64	38.67	38.55	38.42	38.41
640-690	38.96	40.38	41.70	42.50	42.85	42.84

700	42.85					
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**STD SSG DARK GREEN**

400-450nm	9.40	9.17	8.81	8.63	8.52	8.66
460-510nm	8.98	9.39	9.82	10.42	11.14	11.96
520-570nm	13.05	14.37	15.33	15.73	15.69	15.42
580-630	15.08	14.81	14.54	14.22	14.07	14.15
640-690	14.68	15.90	17.50	19.15	20.66	21.62
700	22.41					

**STD SSG LIGHT GREEN**

400-450nm	14.72	14.71	14.39	13.93	13.50	13.56
460-510nm	13.73	13.97	14.26	14.91	15.85	17.18
520-570nm	19.21	21.86	24.04	25.38	25.97	25.82
580-630	25.52	25.16	24.79	24.36	24.00	23.95
640-690	24.53	25.95	27.39	28.40	28.93	29.04
700	29.21					

**STD SSG DARK BROWN**

400-450nm	3.52	3.41	3.28	3.21	3.16	3.18
460-510nm	3.21	3.26	3.29	3.33	3.39	3.56
520-570nm	3.78	4.27	4.82	5.22	5.56	5.78
580-630	6.09	6.35	6.53	6.70	6.89	7.28
640-690	7.79	8.55	9.65	11.07	12.73	14.10
700	15.35					

**STD SSG LIGHT BROWN**

400-450nm	7.88	7.79	7.51	7.29	7.01	6.94
460-510nm	6.91	6.94	7.03	7.21	7.52	8.01
520-570nm	8.82	10.03	11.18	12.12	12.79	13.21
580-630 nm	13.64	13.91	14.07	14.20	14.45	15.24
640-690 nm	16.44	17.94	19.51	20.90	21.94	22.53
700	23.04					

**STD SSG MEDIUM GREEN**

400-450nm	12.35	12.35	12.07	11.82	11.63	11.74
460-510nm	12.02	12.35	12.71	13.17	13.95	15.07
520-570nm	16.77	19.14	21.07	22.25	22.60	22.54
580-630 nm	22.34	22.07	21.73	21.25	21.08	21.13
640-690 nm	21.69	22.88	24.08	24.97	25.53	25.74
700	25.96					

**PICTURE OF FD JACKET MULTICAM PIXILATE PRINT AND PATTERN FOR SSG**



**MATERIAL AND COMPONENTS**  
**CLOTH WOVEN (MULTICAM PATTERN) – CBT SHIRT FOR SSG**

Ser	Test	Test Method/Standard	Specified
1.	GSM (RH 65% at 21°C)	ASTM-D-3776	240 ± 2 g
2.	<b>Material Composition</b>	AATCC-TM-20A	
	a. Cotton %		60 ± 1%
	b. Polyester %		40 ± 1%
3.	Weave		2/1 Twill Rip Stop
4.	<b>No of Threads / 25 mm</b>	ASTM-D-3775	
	a. Warp		114
	b. Weft		60
5.	<b>Dimensional Stability to free Steam</b>	ISO-6330	
	a. Warp (Length wise)		≤1%
	b. Weft (Width Wise)		≤1%
6.	<b>Count of Yarn</b>	ASTM-D 861	
	a. Warp		29.5 Tex
	b. Weft		36.9 Tex
7.	<b>Breaking Strength</b>	ISO 13934-1	
	a. Warp		1000 N ± 5%
	b. Weft		700 N ± 5%
8.	Nature of dye (Base / Print)	By Chemical Analysis	Vet & Disperse
9.	<b>Color Fastness to Washing</b>	ISO-105-C06-DIM:2010	
	a. Change in shade		GS No.4 or Better (for all 6 colors)
	b. Staining on cotton		GS No.4 or Better (for all 6 colors)
10.	<b>Color Fastness to Perspiration</b>	ISO-105-E04:2008	
	a. Change in Shade		GS No.4 or Better (for all 6 colors)
	b. Staining on cotton		GS No.4 or Better (for all 6 colors)
11.	<b>Color Fastness to Rubbing</b>	ISO-105X16:1993	
	a. Dry		GS No.4 or Better
	b. Wet		GS No.4 or Better
12.	<b>Abrasion Resistance</b>	ISO 12947-1:1998E, Martindale Abrasion, 30000	No thread break
13.	Crease Recovery	AATCC TM-66-2009	115°
14.	Wrinkle Recovery	AATCC TM-128	WR-4
15.	Stiffness (cm)	ASTM-D1388	3.8
16.	Air Permeability	ISO-9237	45 (Min)
17.	Water Absorbency (drop test)	AATCC TM-79	
	a. Front side		10 Second (Max)
	b. Back side		08 Second (Max)
18.	Moisture Management (OMMC)	AATCC-179	0.75 (Min)
19.	Zip Slider	Chemical Analysis	Mild Steel Painted
	Teeth		Plastic
20.	Velcro Female	Chemical Analysis	Synthetic Material with good quality



21.	Shade Tolerance	By Data colour Spectrophotometer	$\Delta E$ CMC Beige Ground < 1.00 $\Delta E$ CMC Dark Green < 1.00 $\Delta E$ CMC Light Green < 1.00 $\Delta E$ CMC Dark Brown < 1.00 $\Delta E$ CMC Light Brown < 1.00 $\Delta E$ CMC Medium Green < 1.00
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## **22. SPECTRAL VALUES FOR STANDARDIZATION OF SHADE**

### **STD SSG BEIGE GROUND**

400-450nm	25.31	25.38	24.85	24.51	23.90	24.04
460-510nm	24.50	24.99	25.54	26.93	28.45	30.02
520-570nm	31.75	33.60	35.24	36.70	37.88	38.34
580-630nm	38.54	38.64	38.67	38.55	38.42	38.41
640-690nm	38.96	40.38	41.70	42.50	42.85	42.84
700nm	42.85					

### **STD SSG DARK GREEN**

400-450nm	9.40	9.17	8.81	8.63	8.52	8.66
460-510nm	8.98	9.39	9.82	10.42	11.14	11.96
520-570nm	13.05	14.37	15.33	15.73	15.69	15.42
580-630nm	15.08	14.81	14.54	14.22	14.07	14.15
640-690nm	14.68	15.90	17.50	19.15	20.66	21.62
700nm	22.41					

### **STD SSG LIGHT GREEN**

400-450nm	14.72	14.71	14.39	13.93	13.50	13.56
460-510nm	13.73	13.97	14.26	14.91	15.85	17.18
520-570nm	19.21	21.86	24.04	25.38	25.97	25.82
580-630nm	25.52	25.16	24.79	24.36	24.00	23.95
640-690nm	24.53	25.95	27.39	28.40	28.93	29.04
700nm	29.21					

### **STD SSG DARK BROWN**

400-450nm	3.52	3.41	3.28	3.21	3.16	3.18
460-510nm	3.21	3.26	3.29	3.33	3.39	3.56
520-570nm	3.78	4.27	4.82	5.22	5.56	5.78
580-630nm	6.09	6.35	6.53	6.70	6.89	7.28
640-690nm	7.79	8.55	9.65	11.07	12.73	14.10
700nm	15.35					

**STD SSG LIGHT BROWN**

400-450nm	7.88	7.79	7.51	7.29	7.01	6.94
460-510nm	6.91	6.94	7.03	7.21	7.052	8.01
520-570nm	8.82	10.03	11.18	12.12	12.79	13.21
580-630nm	13.64	13.91	14.07	14.20	14.45	15.24
640-690nm	16.44	17.94	19.51	20.90	21.94	22.53
700nm	23.04					

**STD SSG Medium Green**

400-450nm	12.35	12.35	12.0	11.82	11.63	11.74
460-510nm	12.02	12.35	12.71	13.17	13.95	15.07
520-570nm	16.77	19.14	21.07	22.25	22.60	22.54
580-630nm	22.34	2.07	21.73	21.25	21.08	21.13
640-690nm	21.69	22.88	24.08	24.97	25.53	25.74
700nm	25.96					

**MATERIAL AND COMPONENTS**  
**CLOTH KNITTED (LT-GREEN) – CBT SHIRT FOR SSG**

<b>Ser</b>	<b>Parameters</b>	<b>Testing Std/Method</b>	<b>Specified</b>
1.	GSM	ASTM D-3776	200 ± 10 gm
2.	No of wales /25mm	ASTM D-8007	32 ± 2
3.	No of Courses /25mm		34 ± 2
4.	Fabric Type	Visual Examination	Knitted (Single Jersey Interlock)
5.	Shade	AATCC – 173	Light Green Spectral Values
6.	Shrinkage %		
	a. Length	ISO-7771	5% (Max)
	b. Width		5% (Max)
7.	Count of Yarn	ASTM D-861	29.5 Tex ± 3%
8.	Material	AATCC-TM-20A	100 % Cotton
9.	Washing Test No.3		
	a. Change in Shade	ISO-105C:10	GS No. 4 or Better
	b. Staining on Cotton		GS No. 4 or Better
	c. Staining on Woolen		GS No. 4 or Better
10.	Dye Fastness to light	PS-1337B	Class-IV
11.	Perspiration (Acid /Alkaline)		
	a. Change in Shade	ISO-105	GS No. 4 or Better
	b. Staining on Cotton		GS No. 4 or Better

	c. Staining on Woolen		GS No. 4 or Better
12.	Nature of dye	Chemical Analysis	Vat dye
13.	Scoring loss %	Chemical Analysis	2% (Max)
14.	Width of Welt at neck		2.54 cm wide
15.	Lycra at neck Welt		3%
16.	No of Stitches/25mm		9 to 11
17.	<b><u>Sewing Thread Polyester for Stitching/ Over Locking/ Flat Locking</u></b>		
	a. Material	AATCC-TM-20A	100 % Polyester
	b. BS (61 cm BG)	ASTM D-5035	1.25 Kg
	c. RH 65% at 21°C		
	d. Nature of Dye	Chemical analysis	Disperse
	e. Washing – 3	ISO-105C:10	
	(1) Change in Shade		GS No. 4 or Better
	(2) Staining on Cotton		GS No. 4 or Better
	(3) Staining on Woolen		GS No. 4 or Better
	f. Dye Fastness to light	PS-1337B	Class-IV or better
	g. Substrate	By Chem	Staple Spun Polyester
	h. Shade	AATCC -173	Spectral Values- Approved as per SSG Itr (att Anx'C')
	i. Construction		3 cord each single
	j. Count	ASTM D-861	3/11.8 Tex (3/50 <sup>S</sup> ) ± 3%

	k. Direction	Visual	S/Z
	l. Balance of Twist	Visual	6,7

### **18. SPECTRAL VALUES**

#### **STD SSG LIGHT GREEN**

400-450nm	14.72	14.71	14.39	13.93	13.50	13.56
460-510nm	13.73	13.97	14.26	14.91	15.85	17.18
520-570nm	19.21	21.86	24.04	25.38	25.97	25.82
580-630nm	25.52	25.16	24.79	24.36	24.00	23.95
640-690nm	24.53	25.95	27.39	28.40	28.93	29.04
700nm	29.21					

### **MATERIAL AND COMPONENTS**

#### **PACKING DETAILS**

1.	<b>Carton Card Board</b>	<b>Use for packing</b>
	a. No of plies	07 Nos
	b. Wt/sq mtr	> 1300g/m <sup>2</sup>
	c. Bursting	> 900 Kpa
	d. Thickness	> 7.5 mm
	e. Material of Stapler Pin	Mild steel
	f. Gauge of Stapler Pin	22 SWG
	g. Thickness of Pin	1.8-2 mm
2.	<b>Plastic Hoops/Strap</b>	<b>Use for Packing</b>
	a. Material	Plastic
	b. Width	1.3 cm
	c. Thickness	0.68-0.86 mm
	d. BS (BG 7")	87 ± 5 Kg
	e. Wt per linear mtr	6.8 ± 0.5 gm
3.	<b>Tin Stopper</b>	<b>Use for Packing</b>
	a. Material	Mild Steel Tin Coated
	b. Length	1.3 cm
	c. Width	0.68-0.86 mm

	d. Height		87 ± 5 Kg
	e. Thickness		6.8 ± 0.5 gm
	<b>Tape Adhesive</b>		<b>Use for Packing</b>
	f. Length		66 mtrs
4.	g. Width		10 cm
	h. Thickness		0.04 to 0.05mm
	i. Adhesion		Satisfactory
	j. Adhesion Tape 10 cm wide		Shall be used for sealing the opening of Carton Card
5.	<b>Polythene Sheet / Polythene Bags</b>		<b>Use for Packing</b>
6.	Thickness (Polythene Sheet)		66 Mtrs
7.	Thickness (Polythene Bag Large / Small)		10 cm

### **DIMENSION CHART OF SHIRT SSG**

<b>Spec All measurements are in CM</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>XL</b>	<b>Tol +/-</b>
Length HPS	70	72	74	76	1
Sleeve + HPS to Cuff	70	72	74	76	1
Chest	49	51	53	55	1
Wist	46	48	50	52	1
Bottom	47	49	51	53	1
Bicep	22	23	24	25	1
Cuff Opening	15	15	15	15	0.5
Sleeve Pocket Length	16.5	16.5	16.5	16.5	0.5
Sleeve Pocket Width	14	14	14	14	0.5
Sleeve Patch Length	19.5	19.5	19.5	19.5	0.5
Sleeve Patch top width	17.5	17.5	17.5	17.5	0.5
Sleeve Patch Bottom Width	14	14	14	14	0.5
Collar	41	42	43	44	1
Collar Height	10	10	10	10	0.25

**PICTURE OF COMBAT SHIRT**

