

CIN - U40102GJ2003SGC042906

Registered Office, Visnagar Road, Mehsana-384001

TECHNICAL SPECIFICATIONS

GENERAL GUIDELINES AND TECHNICAL SPECIFICATIONS OF UNIFORM FABRICS FOR UGVCL'S MALE EMPLOYEES

General Guidelines for Sourcing of Fabrics

1	Fabric samples along with shade band and lab dips have to be approved prior to bulk production. The sample may be tested at ATIRA / any Govt. approved laboratories or at UGVCL discretion.			
2	The shade band and lab dips will have to be approved before the commencement of fabric production. The shade will be matched visually. Any shade variation, from the approved shade will not be acceptable.			
3	Test report will have to be attached along with samples of each offered items			
4	All testing should be carried out by an independent accredited agency nominated by UGVCL.			
5	Lot wise Test report for the mentioned parameter will have to be submitted before dispatch of fabric			
6	Fabric will be in the form of packed of length as per schedule-A of tender / requirement of UGVCL and as per specifications of Fabric Pack No.: 1 & 2 (Each applicable for the respective product)			
7	Trims specified in the respective sheets are also to be enclosed in the same pack.			
8	No fabric defect of any nature is permissible in the fabric pack, refer <u>Annexure No. 1</u>			
9	Fabric has to comply with all the mentioned test standards			
10	Packing is as per the Annexure No. 2			
11	Each Fabric Pack must be traceable to the lot Number.			
12	Shade variation within the same piece is strictly unacceptable.			
13	The fabric will be accepted only after a pre dispatch inspection by an independent accredited agency nominated by UGVCL or any person/s deputed by UGVCL and as per UGVCL tender specification / approved/ accepted specification by UGVCL			
14				
15	The successful bidder / suppliers must have to submit one sample of uniform fabrics of shirting & trouser as per photo design and specification of tender, for approval of tender, for approximate tenders approval of tenders.			
Sig	nature of Tenderer:			

Signature of Tender	er:	
Date:	Place:	Company's Round Seal:



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 Phone : 02762-236256

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	TECHNICAL SI ECHICATIONS					
	UGVCL before commencement of production without effecting delivery of schedule of					
	materials.					
16	The supplier should offer the lot of cloths for initial Inspection & joint sampling.					
17	At random the sample from the offered lot will be collected by UGVCL inspector before making pieces from 'Taka' for testing at Textile committee (Govt. of India) / ATIRA / any Govt. approved laboratories Supplier shall have to bear the Testing charges & cloth or as per UGVCL discretion. The cloth should confirm the test as per Tender specification otherwise the manufactured lot will be rejected. One sample will be tested from each lot of supply against each item.					
18	Cloth should be supplied in fabric pack as per UGVCL's requirement only and after approval of Chief Engineer (P), UGVCL, Corporate Office, Mehsna.					
19	Audit inspection of various uniform clothes supplied in pieces at various destinations will be carried out as per UGVCL standard terms & conditions.					
20	Bidder has to,					
	Weave monogram i.e. "Specially made for UGVCL by (name of manufacturer)" on Suiting and Shirting at every One-meter length (minimum).					
21	Bidders are requested to refer the following Annexure which given in the end part of this specification					
	a. Annexure- 1: List of Fabric defects					
	b. Annexure- 2: Specification for the packing					
	c. Annexure- 3: Fabric packs for tender bid					

Signature of Tender	er:	
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TECHNICAL SPECIFICATIONS

ITEM:1 TROUSER

Fabric pack: 1	TROUSER	Fabric code: UG-2-PC
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• Fabric specification:

			Standard No.	Tolerance
Туре		PV suiting		
Content/ composition		65-70% polyester 35-30% viscose	AATCC-20/20A	± 3 units
Weave		Plain		
Ends Per Inch. (Finishe	d)	48	CT.	Min
Picks Per Inch. (Finishe	d)	42	STM-D-3775	Min
	Warp	2/18		Approx
Yarn count	Weft	2/18	ASTM D 3775	Approx
Weight in gms per sqm		238 gms. / Sq.mtr.	ASTM D- 3776	Min
Crease recovery angle (warp +Weft)	,		IS 4681	Min
Tensile strength in Newton		800	150-5081	Min
(20x5 ems)		600	130-3001	Min
Tear strength		4928 g		Min
		4416 g	ASTM D 1424	Min

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TECHNICAL SPECIFICATIONS

• Colour & quality of Fabric for Trouser: As per our sample:

Fabric pack: 1	TROUSER	Fabric code:	UG-2-PC	

• Fabric should confirm following quality standards:

Tests			Test Method Acceptable standard		•
	Fastnes	astness to sun light AATCC-16		4-5	
	Washing	g	AATCC-61-2003	3-4	
Colour fastness	Crockin	g	AATCC-8		3-4
Cotour rustriess	Heat press		AATCC-133		3-4
	Perspiration		AATCC-15-2002	3-4	
Dimensional stab	oility (Aft	er 3 cycles)	AATCC 135-2003	± 2%	
Abrasion,10000 cycles			ASTM D 4966	Shade change	4 or Better
				Pilling	4 or Better
	Length		IC 42201A	29	% (Max)
Washing shrinkage %		Width	12 02301A	IS 63301A 2%	

Note: Banned dyes/ chemicals not to be used

Value for test results:

5:Negligible

4: Slight

3: Noticeable

2: Considerable

1: Sever

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TECHNICAL SPECIFICATIONS

SHIRTING FABRIC (all Male Staff):

Fabric pack:	2	Fabric code:	UG-1-PV

Sr. No.	Construction Parameters	Requirement	Tolerance	Method of Test
1	Nominal Count, Denier			IS 3442
	(a) Warp	2/80 Ne - Intimate blend, Yarn dyed.	± 5%,	
	(b) Weft	2/ 80 Ne- Intimate blend, Yarn dyed.	± 5%,	
2	No. of threads per inch			IS 1963, ASTM D 3775
	(a) Warp	136	+5%, -2.5%	
	(b) Weft	72	+5%, -2.5%	
3	Mass (Weight in grms / sq. meter - GSM)	126.1	Min	IS 1964, ASTM D 3776
4	Fibre Composition %			IS 667, AATCC 20/20A, IS 1564, IS1889, 2005, IS 2176, IS 2177, IS 3416, IS 3421, IS 1969
	(a) Polyester, % content	65	± 3 units	
	(b) Cotton, % content	35	± 3 units	
	Both Warp and wef	t should be of sam	ne shade	

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	Essential Functional Parameters	Requirement	Tolerance	Method of Test
5	Breaking strength on 5cm x 20cm strip, N (kgf)		Minimum	IS 1969, ASTM D 5035
	a) Warp way	440 (44.9)		
	b) Weft way	350 (35.7)		
6	Tear Strength, N (kgf)		Minimum	IS 6489, ASTM D 1424
	a) Warp way	10.0 (1.0)		
	b) Weft way	8.0 (0.8)		
7	Colour Fastness Rating to		Minimum	
	(a) Light:			IS 686 or 2454, AATCC 16, ISO 105B02
	Change in colour	5		
	(b) Washing:			IS 3361, AATCC 612003, ISO 105 C10
	Change in colour	4		
	Staining on adjacent fabric	3-4		
	(c) Perspiration (acidic and alkaline)			IS 971, ISO 105-E04,
	Change in colour	4		
	Staining on adjacent fabric	4		
	(e) Rubbing			IS 766, AATCC 8 & 165, ISO 105-X12
	Dry	4		
	Wet	3		
	(c) Hot Pressing			IS 689, AATCC 133
	Change in colour	4		
	Staining on adjacent fabric	4		

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	Other Functional Parameters	Requirement	Tolerance	Method of Test
8	Crease recovery angle, degrees		Minimum	IS 4681, AATCC 66
	(a) Dry	220 degrees		
	(b) Wet	220 degrees		
9	Dimensional stability to dry heat at 105 ± 2oC, percent		Maximum	IS 12170, AATCC 1352003
	(a) Warp way	1.0		
	(b) Weft way	1.0		
10	Dimensional change on washing, percent		Maximum	IS 1299, AATCC 135 & 150 2003
	a) Warp way	2.0		
	b) Weft way	2.0		
11	Pilling resistance (After 5 hr. of test)	4	Minimum	IS 10971, ASTM 3512
12	Abrasion resistance, 5000 cycles, (Martindale method)	4		IS 12673, ASTM D 4966

• For Trouser following parameter to be checked/Test additional at the time of Lot inspection:

Type	Requirement	Standard No.	Tolerance
Width	58" or 147 Cm		± 1 c m.

Tests	Test Method	Acceptable standard
Bow/ skew	ASTM D 3882	3%

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• For Shirting following parameter to be checked/Test additional at the time of Lot inspection:

Functional Parameters	Requirement	Tolerance	Method of Test
Width, Inches	60	± 0.5 inch	IS 1954, ASTM D 3774
Length, Meter	1.65	± 2 cm	IS 1954
pH value of aqueous extract (Hot method)	16.0 to 8.0		IS 1390

ANNEXURE: 1

<u>List of Fabric Defects</u>		
Nature	Defects	
Yarn Defects	Broken Filaments, Color flecks , Slubs, Knots	
Weaving Defects	Broken Ends, Broken Ends Woven in a Bunch, Broken Pattern, Double End, Float, Gout, Hole-Cut or Tear, Lashing-in, Local Distortion, Missing Ends, Oil or other Stain, Oily or Soiled Ends, Oily Weft, Reed Marks, Selvedge Defect, Slough Off, Smash, Snarls, Stitches, Untrimmed Loose threads, Weft Bar, Weft Crack.	
Processing Defects	Bleaching spot, Blurred or Dark Patch, Defects caused by Hanging Thread, Dye Bar, Dyestuff Stain Misprint/Absence of Print, Patchy or Streaky or Uneven Dyeing, Pilling, Shading or Listing, Uneven Printing or Tinting, Water Mark, White Spot.	
Embroidery Defects	Wrong Placement, Tilting of Embroidery, Broken threads, Incomplete embroidery, Shade Variation.	
Visual Defect	Any visual defect that may affect, salability, serviceability, appearance of the fabric in a way that is significantly unacceptable for sale.	

Signature of Tender	er:	
Date:	Place:	Company's Round Seal:



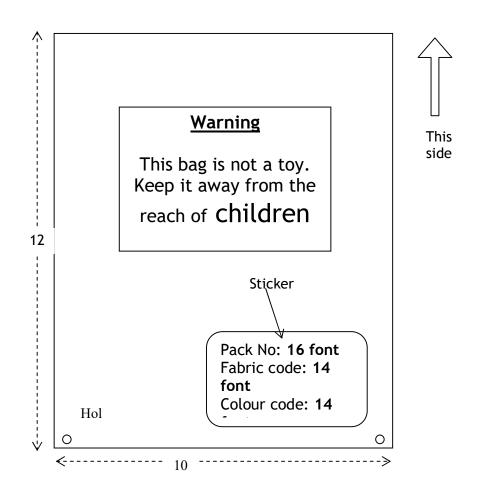
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TECHNICAL SPECIFICATIONS ANNEXURE: 2

Specifications for packing:

- 1. Pack should contain fabric of length as specified in schedule -A of tender
- 2. Ready Pack size 12" $\times 10$ " (+/- $\frac{1}{2}$ ")
- 3. Material: Self adhesive poly bag, gauge: 200
- 4. Necessary warning should be printed in front side of bag to keep it away from the reach of children.
- 5.



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TECHNICAL SPECIFICATIONS ANNEXURE: 3

Fabric Pack for Tender bid

Sr. No.	Details	Fabric Pack
1	Fabric: Suiting + Shirting	Fabric pack No.: 1 + 2

IMPORTANT NOTE:

All the items of Uniform Cloth of this tender SHALL BE STRICTLY AS PER TENDER SPECIFICATION.

For Colour & Design Purpose Only:-

For Colour & Design Purpose only, Swatch/Samples for all items for this Tender are available at, "The Chief Engineer (P &P), Reg & Corporate office, Visnagar Road, Mehsana".

Signature of Tenderer:		
Date:	Place:	Company's Round Seal: