

Appendices

APPENDIX – I

SOLVENT POLARITY INDEX

S.No.	Solvents	Polarity Index
1	Methanol	5.1
2	Ethanol	5.2
3	Water	9 – 10.2
4	Chloroform	4.1
5	Acetone	5.1
6	Hexane	0.1
7	0.1 N Hydrochloric acid	10.2

APPENDIX – IV FT-IR TABLE

Bond	Type of bond	Specific type of bond	Absorption peak	Appearance	
C-H	Alkyl	Methyl	1280 cm ⁻¹	strong	
			1380 cm ⁻¹	weak	
			2870 cm ⁻¹	medium to strong	
			2960 cm ⁻¹	medium to strong	
			3000 cm ⁻¹	strong	
		methylene	1470 cm ⁻¹	strong	
			2850 cm ⁻¹	medium to strong	
			2925 cm ⁻¹	medium to strong	
			2890 cm ⁻¹	weak	
			3000 cm ⁻¹	strong	
	vinyl	C-CH ₂	900 cm ⁻¹	strong	
			2975 cm ⁻¹	medium	
			3080 cm ⁻¹	medium	
			3020 cm ⁻¹	medium	
			3000 cm ⁻¹	strong	
		C-CH	990 cm ⁻¹	strong	
			670-700 cm ⁻¹	strong	
			965 cm ⁻¹	strong	
			300-840 cm ⁻¹	strong to medium	
			3070 cm ⁻¹	weak	
aromatic	benzene sub. benzene	700-750 cm ⁻¹	strong		
		690-910 cm ⁻¹	strong		
	ortho-disub. Benzene	750 cm ⁻¹	strong		
		750-800 cm ⁻¹	strong		
	meta-disub. Benzene	860-900 cm ⁻¹	strong		
para-disub. Benzene	800-860 cm ⁻¹	strong			
alkynes	Any	3300 cm ⁻¹	medium		
	aldehydes	Any	2720 cm ⁻¹	medium	
			2820 cm ⁻¹		
C-C	acyclic C-C	mono-sub. Alkenes	1645 cm ⁻¹	medium	
		1,1-disub. Alkenes	1655 cm ⁻¹	medium	
		cis-1,2-disub. Alkenes	1660 cm ⁻¹	medium	
		trans-1,2-disub. Alkenes	1675 cm ⁻¹	medium	
		trisub. tetrasub. Alkenes	1670 cm ⁻¹	weak	
	conjugated C-C	Dienes	1600 cm ⁻¹	strong	
		with benzene ring	1650 cm ⁻¹	strong	
			1625 cm ⁻¹	strong	
		with C-O	1600 cm ⁻¹	strong	
			1640-1680 cm ⁻¹	medium	
aromatic C-C	Any	1450 cm ⁻¹	weak to strong (usually 3 or 2)		
	1500 cm ⁻¹				
C=O	C=C	terminal alkynes	3300 cm ⁻¹	strong	
			1600 cm ⁻¹	medium to strong	
			2100-2140 cm ⁻¹	weak	
			2190-2260 cm ⁻¹	very weak (often indistinguishable)	
			1720 cm ⁻¹		
		disubst. Alkynes	1685 cm ⁻¹		
			1655 cm ⁻¹		
			1750 cm ⁻¹		
			1775 cm ⁻¹		
			1725 cm ⁻¹	influence of conjugation (as with ketones)	
	aldehyde ketone	saturated	aliph. cyclic 6-membered	1710 cm ⁻¹	
			n β-unsaturated	1685 cm ⁻¹	
			aromatic ketones	1685 cm ⁻¹	
			cyclic 5-membered	1750 cm ⁻¹	
			cyclic 4-membered	1775 cm ⁻¹	
		carboxylic acids derivatives	aldehydes	1725 cm ⁻¹	influence of conjugation (as with ketones)
			saturated carboxylic acids	1710 cm ⁻¹	
			unsat. aromatic carb. Acids	1680-1690 cm ⁻¹	
			esters and lactones	1735 cm ⁻¹	influenced by conjugation and ring size (as with ketones)
			anhydrides	1760 cm ⁻¹	
O-H	alcohols, phenols	low concentration	3610-3670 cm ⁻¹		
			3200-3400 cm ⁻¹	broad	
		high concentration	3200-3400 cm ⁻¹		
			3500-3560 cm ⁻¹		
			3000 cm ⁻¹		
	carboxylic acids	low concentration	3500-3560 cm ⁻¹		
			3400-3500 cm ⁻¹	broad strong	
		high concentration	3000 cm ⁻¹		
			3400-3500 cm ⁻¹		
			3000 cm ⁻¹		
N-H	primary amines	low concentration	3610-3670 cm ⁻¹		
			3200-3400 cm ⁻¹	broad	
		high concentration	3500-3560 cm ⁻¹		
			3000 cm ⁻¹		
			3400-3500 cm ⁻¹	broad strong	

			1560-1640 cm ⁻¹	Strong	
	secondary amines	Any	>3000 cm ⁻¹	weak to medium	
	ammonium ions	Any	2400-3200 cm ⁻¹	multiple broad peaks	
C-O	alcohols	Primary	1040-1060 cm ⁻¹	strong, broad	
		secondary	~1100 cm ⁻¹		
	phenols	Tertiary	1150-1200 cm ⁻¹	Strong	
		Any	1200 cm ⁻¹	Medium	
		Aliphatic	1120 cm ⁻¹		
	Ethers	Aliphatic	1120 cm ⁻¹		
		Aromatic	1220-1260 cm ⁻¹		
carboxylic acids	Any	1250-1300 cm ⁻¹			
Esters	Any	1100-1300 cm ⁻¹	two bands (distinct from ketones, which do not possess a C-O bond)		
C-N	aliphatic amines	Any	1020-1220 cm ⁻¹	often overlapped	
		C-N	Any	1615-1700 cm ⁻¹	similar conjugation effects to C=O
	R-N-C (isocyanides)	C=N (nitriles)	unconjugated	2250 cm ⁻¹	Medium
		conjugated	2250 cm ⁻¹	Medium	
		Any	2165-2110 cm ⁻¹		
	R-N-C-S	Any	2140-1990 cm ⁻¹		
C-X	fluoroalkanes	Ordinary	1000-1100 cm ⁻¹		
		trifluoromethyl	1100-1200 cm ⁻¹	two strong, broad bands	
	chloroalkanes	Any	540-760 cm ⁻¹	weak to medium	
N-O	bromoalkanes	Any	500-600 cm ⁻¹	medium to strong	
		iodoalkanes	Any	500 cm ⁻¹	medium to strong
	nitro compounds	Aliphatic	1540 cm ⁻¹	Stronger	
		Aromatic	1380 cm ⁻¹	Weaker	
			1520, 1350	lower if conjugated	

APPENDIX – VI
HUMAN ETHICAL COMMITTEE



PSG Institute of Medical Sciences & Research
Institutional Human Ethics Committee

POST BOX NO. 1674 - PELLAMEDU - COIMBATORE 641 004 - TAMIL NADU - INDIA
Phone: 91 422 259822-2578179 Fax: 91 422 2594400 Email: psg@psg.edu

PROPOSAL NUMBER : 11/098

PROJECT TITLE : **Application of aloe vera herbal ultraviolet and antimicrobial protection finish on cotton fabrics for health care textiles**

NAME OF THE INVESTIGATOR : **Ms V Krishnaveni (Ph D Thesis)**

NAME OF THE GUIDE : **Dr S Amsamani**

NAME OF THE CO GUIDES : **Dr M Kumaresan
Dr Ramamoorthy**

WAIVER OF CONSENT : **No**

REVIEW TYPE : **Exempt**

DATE OF THE MEETING : **N/A**

DECISION : **Approved**

APPROVAL DATE : **05.05.2011**

DURATION OF THE APPROVAL : **One year**

CONTINUOUS PANEL REVIEW : **Not Needed**

05/05/2011

Dr Y S Sivan
Member - Secretary
Institutional Human Ethics Committee



AVINASHILINGAM UNIVERSITY FOR WOMEN, COIMBATORE- 641043

HUMAN ETHICAL COMMITTEE FOR RESEARCH WORK

This is to bring to your notice that the Human Ethical Committee Meeting was conducted at our University at 2.00pm on 2-2-11 for analyzing the PhD research work on **"APPLICATION OF HERBAL ANTIMICROBIAL FINISH ON COTTON FOR HEALTH CARE TEXTILES"** and judge the quality of the developed health care herbal antimicrobial finished products of Ph.D Scholar Miss V.Krishnaveni. The medicated herbal products includes Hand Glouse in the herb Aloe Vera for UV and Sun protection, Bed Spread in the herb Kuppaimane for Bed Sores, Band Aid in the herb Marigold for Ringworm and rashes, Head and Face Mask in the herb Neem for Dandruff, Black spots and Pimple Cure, Eye Pillow in the herb Yestimathu for Red Eyes and Eye burning and Irritations. In the meeting, the members of the Human Ethical Committee scrutinized the research work and gave the Approval Number H.E.C.2011-20. The committee also approved the same products to conduct a performance study on human beings.



Gunde Signature
Dr S. Amsamani



Dean Signature
Dr G. Krishna Bai

AVINASHILINGAM UNIVERSITY FOR WOMEN, COIMBATORE- 641043

MEMBERS OF THE HUMAN ETHICAL COMMITTEE

- 1) **Dr.(Mrs) G.MANIMEGALAI** - Chairperson
3/535, mehala flour mill,
K. Vadamadurai, Coimbatore
Mamila
12/2/2011
- 2) **Dr (Mrs) VIJAYA LAKSHMI PURUSHOTHAMAN- Dy. Chairperson**
Dean, Faculty of Community Education and
Entrepreneurship Development
V. V. Lakshmi
2/2/11
- 3) **Dr (Mrs). S.PREMAKUMARI** - Member Secretary
Professor and Head
Department of Food Science and Nutrition
S. Prema
2.2.11
- 4) **Dr (Mrs) R.PARVATHAM** - Member
Dean, Faculty of Science
Professor and Head
Department of Bio Chemistry
Parvatham R
2/2/11
- 5) **Dr (Mrs) G.KRISHNA BAI** - Member
Dean, Faculty of Home Science
Professor and Head
Department of Textiles and Clothing
G. Krishna Bai
2/2/11
- 6) **Dr (Mrs). A SARASWATHY** - Member
Associate Professor
Department of Bacteriology and
Medical Officer
A. Saraswathy
2/2/11
- 7) **Mrs.RADHADEVLS** - Member
Associate Professor
Department of Food Science and Nutrition
Radha Devi
2.02.2011
- 8) **Dr.(Mrs) N.S ROHINI** - Member
HOD, Associate Professor
Department of Psychology
N. S. Rohini
2.2.11.
- 9) **Dr.M.KUMARESAN MD,** - Special Inviter
Skin Dermatologist,
Department of Dermatology,
PSG College of Medical Science and Hospitals, Coimbatore
M. Kumaresan
2-2-11.

APPENDIX – VII

QUESTIONNAIRE USED FOR WEARER'S OPINION ABOUT THE ULTRA VIOLET PROTECTION AND ANTIMICROBIAL ALOE VERA FINISHED TEXTILE FABRICS / GLOVES

1. Name :
2. Age group :
3. Educational qualification :
4. Address :

5. Phone Number :
6. Occupational Status :
7. Name of the Company / Institution :
8. Are you having skin problems? : Yes No
If, yes mention the type of skin allergies.
Irritation Patches
Skin Tanning Skin Tone Change
Any other
9. How many hours you will be working in sunlight?
 $\frac{1}{2}$ hour 2 hours 4 hours 6 hours
10. Do you have any problems, if you are exposed to sunlight for long hours?
Yes No
If yes, give the reasons.
11. Are you taking any safety measures to prevent your skin problems created by sunlight? Yes No
If yes, mention the treatment undergoing.
12. Are you using any antibiotics for curing sun tan? Yes No
If yes, mention the name of the antibiotic.
Cream Moisturizer Medicine Lotion
13. Are you comfortable with the commercial ultra violet / sun protective antibiotics? Yes No
If no, state the reason.
14. Is the treatment taken by you is affordable? Yes No

15. Do you need an alternative ultraviolet protection product? Yes No
16. Do you prefer natural products for usage of ultraviolet protection?
Yes No
17. Are you interested in using a natural sun screen protection gloves ?
Yes No
18. How many hours you will prefer to wear the products?
3 hours 4 hours 6 hours 8 hours
19. How long have you used the product?
5 days 10 days 20 days 30 days
20. Are you comfortable with the *Aloe vera* finished ultraviolet and antimicrobial finished hand gloves?
Highly satisfied Satisfied
Moderate Dissatisfied
21. Does our product cause any skin allergies? Yes No
22. Do you feel any odour or sweat while wearing this *Aloe vera* finished hand gloves? Yes No
23. Whether the *Aloe vera* ultraviolet finish is durable? Yes No
If yes, how many washes.
5 washes 10 washes
15 washes 25 washes
24. Are you satisfied with the cost when compared to commercial products.
Yes No
25. Your opinion about our newly developed product?
Much better Satisfied
Moderate Dissatisfied
26. Does the photo testing method cause any skin problems?
Yes No
If yes, mention the problems.
27. Any other comments.

APPENDIX – VIII
QUESTIONNAIRE USED FOR WEARER’S OPINION ABOUT
THE THERMAL RESISTANCE PROTECTION AND
ANTIMICROBIAL FINISHED YESHTIMADHU EYE PILLOW

1. Name :
2. Age group :
3. Educational qualification :
4. Address :

5. Phone Number :
6. Occupational Status :
7. Name of the Company / Branch :
8. Do you have any eye problem? : Yes No
If yes, state the problem.
9. Reasons for eye problem?
Working in computers working for long hours
Watching TV Heredity
10. Are you wearing any commercial products for this particular eye problem?
Yes No
11. Do you wear any glass while working in the computer?
Yes No
12. How many hours are you working with computers?
6 hours 9 hours 12 hours 24 hours
13. Have you undergone any treatment before? Yes No
If yes, state the treatment.
13. Have you taken any antibiotics? Yes No
If yes, mention about the name of the product.
14. What are the other side effects associated with eye problems?
Head ache Redness in eyes
Loss of memory Sight problems

15. Do you prefer any natural products other than eye drops (or) antibiotics?
Yes No
16. How many hours you are willing to use the products?
 $\frac{1}{2}$ hour 1 hour 3 hours 4 hours
17. How long have used to the product?
5 days 10 days 20 days 30 days
18. Are you comfortable with the yeshtimadhu finished eye pillow?
Highly satisfied Satisfied
Moderate Dissatisfied
19. Did the developed eye pillow cause any side effects? Yes No
If yes, mention about the problem arised.
20. Is there any odour / breathing problem while using the product?
Yes No
21. Whether the yeshtimadhu coolant finish is durable ? Yes No
If yes, how many washes.
5 washes 10 washes 20 washes 25 washes
22. Are you satisfied with the cost when compared to commercial products?
Yes No
23. Your opinion about our newly developed product?
Much better Satisfied
Moderate Dissatisfied
24. Any other comments.

APPENDIX – IX

RECOMMENDATION LETTERS



PSG HOSPITALS

AVINASHI ROAD • PEELAMEDU • COIMBATORE 641 004 INDIA



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E-mail : psghospitals@yanu.co.in

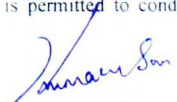
RECOMMENDATIONS OF HUMAN ETHICAL COMMITTEE
FOR THE
RESEARCH WORK OF MS V.KRISHNAVENI

This is to bring to your notice that I, Dr.M.KUMARESAN MD, Dermatologist, Department of Dermatology, PSG Institute of Medical Sciences and Research, PSG Hospitals, Coimbatore, was invited as a special invitee for the Human Ethical Committee Meeting conducted at Avinashilingam Deemed University at 2.00PM on 02-02-2011 for analyzing the research work of the PhD Scholar MS.V.Krishnaveni, who is doing PhD under the guidance of Dr.Mrs.Amsamani on “ **APPLICATION OF SELECTED HERBAL ANTIMICROBIAL FINISH ON COTTON FOR HEALTH CARE PRODUCTS**” and for recommending the health care herbal antimicrobial finished products developed.

The medicated herbal products include hand gloves made from herb *Aloe vera* for ultraviolet and sun protection, bedspread made from herb *Kuppaimeni* for bed sores and skin allergies, sandals made from herb *Marigold* for foot cracks, head and face mask made from herb *Neem* for dandruff and hairfall and black pimple spots, eye pillow from herb *Yeshtimathu* for eye irritation and red eyes.

In the meeting, I have scrutinized her research work with special references to medical applications, current needs, effectiveness of the herbal products and the time taken for the specific diseases. After deliberations I am recommending only two medicated, health care herbal products namely *Aloe vera* hand gloves and *Yeshtimathu* eye pillow for the wear study. The committee also approved the same products. The invigilator is permitted to conduct a performance study on human subjects.

Dr. M. KUMARESAN MD,
Assistant Professor,
Department of Dermatology,
PSG Hospitals,
Coimbatore


Dr.M.KUMARESAN MD,
Assistant Professor,
Department of Dermatology,
PSG Hospitals,
Coimbatore

APPENDIX – X
WEAR STUDY POLICE REPORT

உதவி ஆணையர் ஆலுவலகம்,
கோவை மாநகர்,
நாள் - 01.08.2011.

சிபாரிசு கடிதம்

“The Ultraviolet Protection and Antimicrobial” என்ற ஆராய்சியாளரால் சோற்றுக்கற்றாழையினால் தயாரிக்கப்பட்ட கையுறை (Hand Gloves) பயன்பாட்டினைப்பற்றி காவல் மத்தியில் பயன்படுத்தியபோது, அவர்கள் பயன்பாட்டின் சிறப்பினை ஆராய்ந்தபோது மேற்படி தயாரிப்பினால் தயாரிக்கப்பட்ட கையுறைகள் அணிவதால் ஆரோக்கியமாகவும், காற்றோட்டமாகவும் இருப்பதாக அறியவந்தேன். இதனால் இத்தயாரிப்பினால் வெளிக்கொணரப்பட்ட கையுறைக்கு சிபாரிசு செய்யப்படுகிறது.



(Signature)
காவல் உதவி ஆணையர்,
போக்குவரத்து மேற்கு,
கோவை மாநகர் 641 005
ASST. COMMISSIONER OF POLICE
TRAFFIC WEST
COIMBATORE CITY

APPENDIX – XI

ULTRA VIOLET PROTECTION RATING

UPF Rating	Protection category	% UV Radiation blocked
UPF 15 – 24	Good	93.3 – 95.9
UPF 25 – 39	Very good	96.0 – 97.4
UPF 40 – 49	Excellent	97.5 or more
UPF 50+	Ultimate protection	

APPENDIX – XII

EFFECT OF UV RAYS ON DIFFERENT TYPES OF SKIN

Skin type (Appearance unexposed)	Critical dose (mJ/cm ²)	Self protection time (min)	Risk level
I – White	15 – 30	5 – 10	Burns easily, has the highest risk of premature skin ageing and greatest risk of developing skin cancer.
II – White	25 – 35	8 – 12	Burn and only rarely tan
III – Brownish	30 – 50	10 – 15	Tan and occasionally burn
IV – Brown	45 – 60	15 – 20	Tan and occasionally burn
V – Brown	60 – 100	20 – 35	Sufficient levels of melanin and rarely burns, easily tan
VI – Dark Brown – Black	100 – 200	35 – 70	Sufficient levels of melanin pigment provide protection. Very rarely burns, easily tan.

APPENDIX – XIII

CLINICAL WEAR STUDY REPORTS



PSG HOSPITALS

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CERTIFICATE FOR CLINICAL "IN INVIVO" WEAR STUDY
ON HUMAN SUBJECTS FOR ULTRAVIOLET PROTECTION

The PhD Scholar, Ms V.Krishnaveni, Department of Textiles and Clothing, Avinashilingam University for Women, Coimbatore, India has conducted a "Clinical *In Vivo* Wear Study" on human subjects with her medicated herbal products in our PSG Hospitals at PSG Institute of Medical Sciences and Research, Coimbatore from February 2011 to June 2011.

The human ethical committee of our institution recommends the product used for the human study is *Aloe Vera* herbal medicated fabric/gloves for controlling the ultraviolet and sun protection. Thirty five volunteers with Fitzpatrick skin type 3,4 of human subjects were selected for the study. Minimal Erythema Dose (MED) to BB-UVB xenon arc source, phototherapy panel (V care systems) with 8 TL 100W / 12 bulbs were used to determine MED value of human subjects. Each irradiated site was marked with gentian violet for identification purpose and readings were taken 24 hrs after irradiation. The perceptible erythema visible to the naked eye was taken as a MED.

The *Aloe Vera* ultraviolet finished fabrics gave a better UV protection factor against the artificial light source to all the human subjects. As per the comments given by the human patients, this newly developed *aloe vera* herbal finished fabrics has shown good ultraviolet and sun protection factor. This *aloe vera* product will be more suitable for controlling the harmful effects of ultra violet rays on skin.

Dr. M. KUMARESAN MD,
Assistant Professor,
Department of Dermatology,
PSG Hospitals,
Coimbatore


Dr.M.KUMARESAN MD,
Assistant Professor,
Department of Dermatology,
PSG Hospitals,
Coimbatore



Indian Ayurvedic Hospital and Research Limited



CERTIFIED TO STUDENT PROJECT.

This is to certify that Ph.D. Scholar, V.Krishnaveni, Department of Textiles and Clothing, Avinashilingam University for Women, Coimbatore, conducted a Wear Study in our hospital (Indian Ayurvedic Hospital & Research Limited, Ganapathy, Coimbatore – 6) regarding her project work for a month. The product used for her study was herbal yashtimadhu finished eye pillow. We examined the product to our patients and found better result in reducing eye strain by providing coolant effect to eyes. The product gave a better comfort and anti microbial activity which reduced the inconvenience faced by the persons due to the commercial products. The products are washable and reused by our patients. The products showed good results and did not harm the user in any aspects. The project will be very much useful for future and endeavors for medical field.

Coimbatore 641 006
19 April 2011


Dr. Joseph T Varghese B.A.M

Chief Consulting Physician
Indian Ayurvedic Hospital
And Research Limited
S.F.No. 85, Rajavignesh Nagar
Vilankurichi Road, Ganapathy
Coimbatore - 641 006
Phone:2510526,2510528,2511516



SRI GAYATHRI NATURE CURE HOSPITAL

YOGA EDUCATIONAL INSTITUTE



I.O.B. COLONY BUS STOP - NEAR MARUTHAMALAI - COIMBATORE - 641 046.

Director

Dr. N.S. Shanmugavel

REG. NO. MINT. MEST. D. 646

Date 18.4.20

CERTIFIED TO STUDENT'S PROJECT

This is to certify that Ph.D. Scholar V.Krishnaveni, Department of Textiles and Clothing, Avinashilingam University for Women, Coimbatore conducted a wear study in our hospital (SRI GAYATHRI NATURE CURE HOSPITAL, MARUTHAMALAI) for 30 days. The product used for the study was herbal yashtimadhu finished eye pillow. Our patients used it and reported that it produced a coolant effect to eyes and was comfortable. so this project is recommended for medical field in future.

SRI GAYATHRI NATURE CURE HOSPITAL
Yoga Educational Institute • Human Body Service Centre
I.O.B. Colony Bus Stop,
Near Maruthamalai,
Coimbatore - 641 046
Ph : 2425003, 2426538 Cell : 98422-02958

APPENDIX – XIV

WEAR STUDY IT PROFESSIONALS REPORT



CERTIFICATE FOR EYE PILLOW WEAR STUDY ON SOFTWARE PROFESSIONALS FOR THERMAL COMFORT PROTECTION

This to certify that the PhD Scholar, Ms V Krishnaveni, Department of Textiles and Clothing, Avinashilingam University for Women, Coimbatore, India has conducted a "Eye Pillow Wear Study" on IT/ Software Professionals with her yashtimadhu medicated herbal product in our VANENBURG SOFTWARE (INDIA) PRIVATE LIMITED, KCT Tech Park, Coimbatore for 30 days.

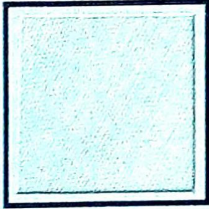
The *yashtimadhu* thermal comfort and antimicrobial finished fabrics gave a better thermal comfort protection factor against the heat produced by the computer to all the software professionals. As per the comments given by the software executives, this newly developed *yashtimadhu* herbal finished fabrics has shown better result in reducing eye strain by providing thermal comfort and coolant effect to eyes. This *yashtimadhu* product will be more suitable for controlling the eye strain and stress.

A handwritten signature in blue ink, appearing to read "V. K. S.", is written over a horizontal line.

Authorised Signatory

VANENBURG SOFTWARE (INDIA) PVT LTD.,
GROUND FLOOR, WEST WING
KCT TECH PARK, KCT CAMPUS
CHINNAVEDAMPATTY,
COIMBATORE-641 006,

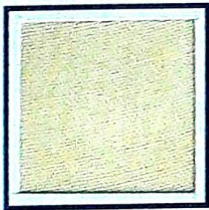
APPENDIX – III
HERBAL FINISHED SAMPLES



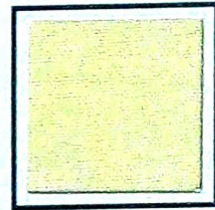
AUPF



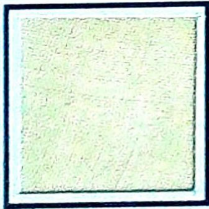
AUMF



MAPF



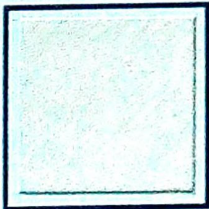
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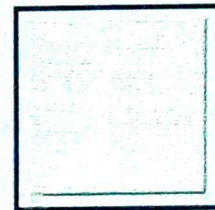
KUPF



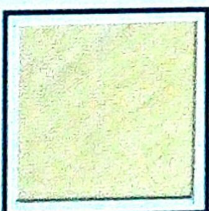
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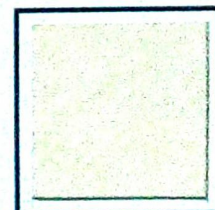
NEPF



NEMF



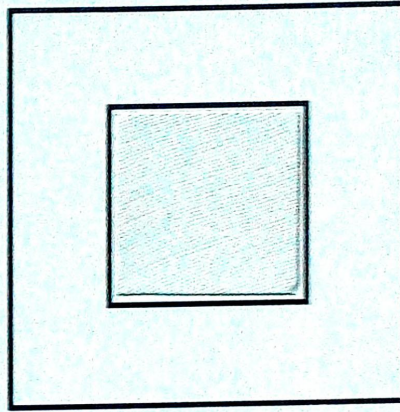
YEPF



YEMF

APPENDIX – II

DETAILS OF UNFINISHED FABRIC



Fabric	-	100% cotton
Weave	-	Plain
Number of warp / inch	-	82
Number of weft / inch	-	64
GSM	-	63
Count	-	60 ^s
Weight	-	60 g / m ²
Warp cover factor	-	10.58
Weft cover factor	-	8.26
Overall cover factor	-	15.72
Condition	-	Bleached
Price / meter	-	Rs.40.00