

VIRIDIAN

NABL Accredited & BIS Recognized Testing Laboratory

WHERE
QUALITY
IS CONCERNED
WE TAKE
NO CHANCES



Visit Our Website:
www.viridianlab.com



Member of

INDIAN TECHNICAL TEXTILE
ASSOCIATION

About Us

Viridian Testing Laboratories LLP is strongly intertwined with the legacy established by our group companies having a 30 years history of catering the world wide requirements with highest levels of finesse and quality.

OUR MISSION

Our mission is to offer the most technologically advanced portfolio of quality services to the customer for their supply chain across the globe.



Viridian Testing Laboratories LLP is a leading NABL accredited laboratory (Certificate No. TC- 10000) for medical textiles & PPE (including Protective textiles, Technical textiles, medical devices, Hygiene products) and apparels (including cotton, Apparels & Home textile) testing. Our laboratory is recognized by the BIS for medical textiles & PPE. Viridian has the competence to test 85 parameters for medical textiles & PPE and 32 parameters for Apparel testing in accordance with EN, AATCC, ASTM, ISO, IS, NIOSH and GB standards, thus covering the regulatory requirements of various countries including the USA (USFDA), Europe (CE Marking), Australia, India and China. (View Scope of the lab). We fulfill all the testing needs of the medical devices, PPE & Textiles industry.

Our state of art testing laboratory having the world class equipment for the testing of mechanical, chemical, biological disciplines.

WHY VIRIDAN ?

- Uncompromised commitment towards quality
- Strong technical expertise in PPE testing standards
- Well maintained State of the art infrastructure
- Quality Management System as per ISO 17025:2017
- Paramount knowledge in PPE regulatory requirements
- Covering a wide spectrum of PPE regulatory tests
- Technical Support in product development and quality improvement

Laboratory



Microbiology Laboratory

Our 1500 Sq.ft laboratory consists of ultra clean rooms with appropriate safety mechanism, an aseptic operation area, pathogen storage section and a highly effective decontamination chamber.

Physical / Mechanical Laboratory

This section of the lab is specialized in testing of the physical/mechanical properties of the PPE gear and textile products. The testing is carried out in accordance to various international testing standards.



Chemical Laboratory

Tests related to washing and drying of textile products covering both U.S.A & EUROPEAN standards. Going forward this section will be developed in determining and testing of core chemical parameters.

VIRIDIAN TESTING LABORATORIES LLP is a state of the art Laboratory specialized in the testing of:



NON WOVEN
FABRIC



SURGICAL
3 PLY MASK

STRINGENT QUALITY TESTS TO ENSURE YOUR SAFETY



PPE
COVEROLL



SURGICAL GOWN
/ DRAPES



N95/FFP2 RESPIRATOR
FILTERING HALF
FACE MASK



QUALITATIVE GMO
SCREENING OF ORGANIC
COTTON & TEXTILES
AS PER ISO IWA 32



Viridian testing Laboratory follows all the Indian standards (IS 16289 , IS 17334 , IS 17423 & IS 9473) , European standards (EN 14683 , EN 13795 & EN 149) , American standards (ASTM F2100 , ASTM F2401 , ANSI / AAMI PB10 , NIOSH & 42 CFR 84) , Chinese standards (GB 2626) & other international standards for PPE testing.

The lab in India has a large - scale facility for PPE testing with all precise instruments . All the testing requirements of NIOSH , FDA , CE & BIS under one roof.

TEST CAPABILITIES

COMPREHENSIVE
TESTING
FACILITIES



Our Accreditations & Certifications



TC-10000



Recognised

Member of



INDIAN TECHNICAL TEXTILE
ASSOCIATION



HANES
Brands Inc

VIRIDIAN TESTING LABORATORIES LLP - TEST CAPABILITIES

PRODUCT	STD	TEST NAME	Test Method (Country wise)		
			EN	US	IS
Surgical Gown/ Drapes / Isolation Gown	EN 13795 / AAMI PB70 & ASTM 2407 / IS 17334	Impact Resistance		AATCC 42	ISO 18695
		Hydrostatic Pressure		AATCC 127	ISO 811
		Synthetic Blood Penetration		ASTM F1670	IS 16546
		Viral Penetration		ASTM F1671	IS 16545
		Resistance to Wet Bacteria	EN ISO 22610		IS 16549
		Resistance to Dry Bacteria	EN ISO 22612		IS 16548
		Particle Release	EN ISO 9073-10 *		IS 15891-10 *
		Bursting Strength	EN ISO 13938-1		IS 1966-1
		Microbial Cleanliness	EN ISO 11737-1		ISO 11737-1
		Tear Resistance		ASTM D5587	
		Seam Strength		ASTM D1683	
		Abrasion Resistance		ASTM D4966	
		Liquid Penetration	EN ISO 811		
		Tensile Strength	EN 29073-3	ASTM 5034	IS 15891-3 & IS 1969-1
		Biocompatibility evaluation - Cytotoxicity			IS/ISO 10993-5*
		Biocompatibility evaluation - Irritation & Skin sensitization			IS/ISO 10993-10*
PRODUCT	STD	TEST NAME	EN	US	IS
Protective clothing / Gown / Bio protective Coverall	EN 14126 & EN 13034 & EN 14605 & EN 14325 / AAMI PB70 / IS 17423	Resistance to Dry Bacteria	ISO 22612		IS 16548
		Resistance to Wet Bacteria	ISO 22610		
		Synthetic Blood Penetration	ISO 16603	ASTM F 1670	IS 16546
		Viral Penetration	ISO 16604	ASTM F 1671	IS 16545
		D.S to Washing	EN ISO 6330		
		Abrasion Resistance	EN ISO 12947-2		
		Tear Resistance	EN ISO 9073-4		
		Tensile Strength	EN ISO 13934-1		IS 15891-3 & IS 1969-1
		Seam Strength	EN ISO 13935-2		IS 15891-18 & ISO13935-1
		Impact Resistance		AATCC 42	
		Hydrostatic Test	EN 20811	AATCC 127	
		Puncture strength	EN 863*		
		Flex cracking resistance	ISO 7854*		
		Pre-treatment by cleaning	ISO 3175-1*		
		Resistance to permeation by chemicals in seam joints	ISO 6929*		
		Resistance to penetration by liquids Type 3	ISO 17491-3*		
		Resistance to penetration by liquids Type 4	ISO 17491-4*		
		Breathability (WVTR)			IS 16390 (Annex F)*
		Bursting Strength			IS 1966-1
		Microbial Cleanliness			ISO 11737-1
		Biocompatibility evaluation - Cytotoxicity			IS/ISO 10993-5*
		Biocompatibility evaluation - Irritation & Skin sensitization			

VIRIDIAN TESTING LABORATORIES LLP - TEST CAPABILITIES

PRODUCT	STD	TEST NAME	Test Method (Country wise)		
			EN	US	IS
Surgical 3 Ply Mask	EN 14683 / ASTM 2100 / IS 16289	Fluid / Splash Resistance	ISO 22609	ASTM F1862	IS 16289 (Annex D)
		Breathability (Differential Pressure)	EN 14683 (Annex C)	EN 14683 (Annex C)	IS 16289 (Annex C)
		Bacterial Filtration Efficiency (BFE)	EN 14683 (Annex B)	ASTM F2101	IS 16288
		Sub-micron Particulate Filtration Efficiency (PFE) 0.1 µ		ASTM F2299	IS 16289 (Annex E)
		Microbial cleanliness	EN 14683 (Annex D)		
		Flame Spread		16CFR 1610	
PRODUCT	STD	TEST NAME	EN	US	IS
Filtering Half Face mask/ Respirator (N95,99,100/ FFP1,2,3)	EN 149 / 42 CFR 84 / IS 9473	Material	EN 149		IS 9473
		Cleaning And Disinfecting	EN 149		IS 9473
		Practical Performance Test	EN 149		IS 9473
		Total Inward Leakage	EN 149		IS 9473
		Penetration Of Filter Material	EN 149		IS 9473
		Compatibility With Skin	EN 149		IS 9473
		Flammability	EN 149		IS 9473
		Carbon Dioxide Content Of The Inhalation Air	EN 149		IS 9473
		Head Hardness	EN 149		IS 9473
		Field Of Vision	EN 149		IS 9473
		Inhalation Valve(S)	EN 149		IS 9473
		Exhalation Valve(S)	EN 149		IS 9473
		Breathing Resistance	EN 149		IS 9473
		Clogging	EN 149		IS 9473
		De Mountable Parts	EN 149		IS 9473
		Packing	EN 149		IS 9473
		Marking	EN 149		IS 9473
		Particle Filtration Efficiency (NIOSH Method)		NIOSH TEB-APR-STP-059	
		Fit testing as per OSHAS		29 CFR 1910.134	
		Inhalation resistance (NIOSH Method)		NIOSH TEB-APR-STP-007	
		Exhalation resistance (NIOSH Method)		NIOSH TEB-APR-STP-003	

* Test will be performed at our partner lab

VIRIDIAN TESTING LABORATORIES LLP - TEST CAPABILITIES

PRODUCT	STD	TEST NAME	TEST METHOD
Adult Diaper (Disposable)	IS 17508	Bacterial & Fungal Bioburden	IS 17508
		Test for common skin Pathogen - Staphylococcus	IS 17508
		pH value	IS 1390
		Rate of absorption, Rewet underload	IS 17508 (Annex B)
		Minimum Absorption capacity	ISO 11948-1
PRODUCT	STD	TEST NAME	TEST METHOD
Baby Diaper (Disposable)	IS 17509	Bacterial & Fungal Bioburden	IS 17509
		Test for common skin Pathogen - Staphylococcus	IS 17509
		pH value	IS 1390
		Rate of absorption, Rewet underload	IS 17509 (Annex B)
		Minimum Absorption capacity	IS 17509 (Annex B)
PRODUCT	STD	TEST NAME	TEST METHOD
Sanitary Napkin (Disposable)	IS 5405	Bacterial & Fungal Bioburden	IS 5405
		Test for common skin Pathogen - Staphylococcus	IS 5405
		pH value	IS 1390
		Ability to withstand Pressure after absorption	IS 5405 (Annex B)
PRODUCT	STD	TEST NAME	TEST METHOD
Reusable sanitary pad/Napkin/Period panties	IS 17514	C.F to rubbing	IS/ISO 105 X12
		C.F to perspiration	IS/ISO 105E04
		C.F to washing	IS/ISO 105 C06
		D.S to washing	IS 16394 (Annex C)
		Bacterial & Fungal Bioburden	IS 17514
		Test for common skin Pathogen - Staphylococcus	IS 17514
		pH value	IS 1391
		Ability to withstand Pressure after absorption	IS 17514 (Annex B)
PRODUCT	STD	TEST NAME	TEST METHOD
Shoe cover	IS 17349	Microbial Cleanliness	ISO 11737-1
		Tensile Strength	IS 15891-3 & IS 1969-1
		Bursting strength	IS 1966-1
PRODUCT	STD	TEST NAME	TEST METHOD
Surgeon Caps	IS 17629	Microbial Cleanliness	ISO 11737-1
		Tensile Strength	IS 15891-3 & IS 1969-1
		Bursting strength	IS 1966-1
		Particle release	IS 15891-10 *
		Resistance to Dry Bacteria	IS 16548

* Test will be performed at our partner lab

PRODUCT	STD	TEST NAME	TEST METHOD
Bedsheet & Pillow Cover (Reuseable & Disposable)	IS 17630	C.F to rubbing	IS/ISO 105 X12
		C.F to perspiration	IS/ISO 105E04
		C.F to washing	IS/ISO 105 C06
		C.F to Light	IS/ISO 105 B02 *
		D.S to washing	ISO 6330
		Pilling resistance	IS 10971 -2 *
		Scouring Loss	IS 1383 *
		Tensile Strength	IS 15891-3 & IS 1969-1
		Bursting strength	IS 1966-1
		Seam Strength	IS 15891-18 & ISO13935-1
		pH value	IS 1390
		Water soluble substances	IS 14944
		Microbial Cleanliness	ISO 11737-1
		Particle release	IS 15891-10 *
		Biocompatibility evaluation - Cytotoxicity	IS/ISO 10993-5*
		Biocompatibility evaluation - Irritation & Skin sensitization	IS/ISO 10993-10*
PRODUCT	TEST PARAMETERS		TEST METHOD
Organic Cotton Seed, Lint, Seed cotton, Leaf, Yarn & Greige Fabric	Screening of SAH7		ISO IWA 32
	Screening of 35 STM		
	Screening of TNOS		
	Screening of CRY1Ab		
	Screening of pat		
	Screening of otp/mepsp		
	Screening of FMV		
PRODUCT	TEST PARAMETERS		
Knitted, Woven Fabric /Garments	Anti bacterial /Microbial activity		
PRODUCT	TEST PARAMETERS		
Subjective test	Muinsell Hue test		
PRODUCT	TEST PARAMETERS		
Hosiery Yarn	Yarn count		
	Yarn strength *		
	Yarn Twist *		
	CSP (Count strength product) *		
	Yarn count CV % *		
	Yarn hairiness index *		
	Yarn appearance *		

* Test will be performed at our partner lab

PRODUCT	TEST PARAMETERS
Greige Fabric /knitted fabric	Loop length
	Gauge
	DIA(before & after wash)
PRODUCT	TEST PARAMETERS
Knitted, Woven Fabric /Garments, Trims & Accessories	C. F to Laundering/ Washing
	C. F to Rubbing / Crocking
	C. F to Perspiration
	C. F to Water
	C. F to
	Sea water
	C.F to Dry cleaning
	C.F to Hot pressing
	C.F to Dry heat
	C.F to Saliva
	C.F to Chlorine Bleach *
	C.F to Non Chlorine Bleach *
	C.F to saliva
	C.F to Light *
	D.S to washing /Shrinkage
	Spirality
	Mass per unit area /GSM
	Fabric / Garment appaerance after washing
	Print Durability
	Bursting strength
	Cloth cover factor
	Pilling resistance
	Martindale Abrasion /pilling
	Tear Strength
	Tensile strength
	Seam Slippage & strength
	Stretch and recovery
	Stitch density/Construction
	Yarn Count removed from fabric
	pH Value
	Fiber composition
	Cotton/Linen Blend composition
	Azo free *
	Formaldehyde spot test*
	Formaldehyde content *
	Phthalate *
	Nickel spot *
	Nickel release *
	Lead content & surface coating *
	PCP *
	PVC *
	BHT *
	Flammability *
	Toxicity *
	Cadmium content *
	Disperse dyes *
	Organotin compounds *
	Phenolic yellowing *
	Heavy metals *
	NPEO and AEPO *
	PFOS and PFOA *

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SERVICE

We help our customers in understanding and interpret the test result in simple terms. We have comprehensive brochures which Provides adequate information on the tests being performed. We can receive your samples on all the seven days of the week.

LOCATION

We are strategically located in Tirupur District where thousands of international shipments and couriers come in and out on daily basis. This ensures a seamless connectivity with our customers and associates.

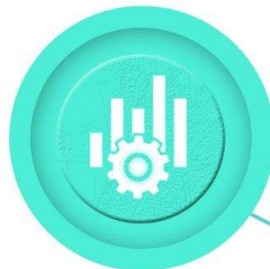
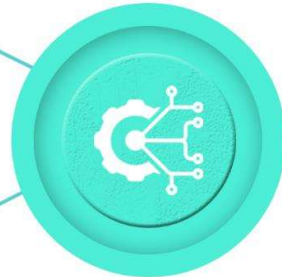


TESTING CHARGES

We offer a very competitive pricing to our customers and there is substantial discounts offered on products being tested for multiple parameter conformity .

TECHNOLOGY & EXPERTISE

The technology adapted by us and the corresponding skill and ability of our team in handling them is at par with the best of its kind .



OPERATION

With a team of professionals having ample experience under their sleeves and guided by a strong system driven process VIRIDIAN TESTING LABORATORY is one of the best managed laboratories in the country.

SATISFACTION

A well received customer who is guided through the process, whose queries are answered as per his understanding and timely service commitment supported with a good communication medium ensures a satisfying experience to any customer.



VIRIDIAN **KEY PARAMETERS**



DRY MICROBIAL PENETRATION EFFICIENCY

ISO 22612/ IS16548

Dry microbial penetration resistance tester is to assess the penetration resistance through barrier materials of bacteria - carrying particles . It is the recommended testing method for determine the safety of the wearer by testing the protective performance against dry infectious agents when using medical clothing and related protective suit. The standards covered under this testing are ISO - 22612 , EN - 13795 , EN - 14126



WET MICROBIAL PENETRATION EFFICIENCY

ISO 22610/ IS16549

Wet penetration testing is to determine the resistance to wet bacterial penetration of surgical drapes , gowns and clean air suits , and relative medical devices . The tester is used for measuring the wet penetration of skin flora through a covering material under mechanical rubbing. The testing results gives an accurate and reliable data for evaluating the final application performance . The standards covered under this testing are EN ISO 22610 , EN 14126



PARTICULATE FILTRATION EFFICIENCY (0.1MICRON)

(ASTM F 2299/ IS16289)

The TSI Fractional Efficiency Filter Tester can provide data required as per ASTM F2299 . It is designed to challenge the filter media with monodisperse aerosol in the range of 15 to 800 nm . It counts the particles with a dual condensation particle counter which enables the user to determine the most penetrating particle size .



BACTERIAL FILTRATION EFFICIENCY (BFE)

(ASTM F2101 / EN14683 / IS16288)

Bacterial Filter Efficiency (BFE) Testing system allows the testing of medical face mask , materials and filters according to ASTM 2101 , IS 16289 , and EN 14683 with Staphylococcus Aureus . This turn - key system provides a quantitative method for determining the filter efficiency of mask materials with a maximum filtration efficiency of 99.9 % .



PARTICULATE FILTRATION EFFICIENCY

(NIOSH - TEB - APR - STP - 0057 / 0058 / 0059)

The Automated Filter Tester Model 8130 continues to be the best solution for testing particulate respirator filters , disposable filtering face pieces , and a wide assortment of filter media . TSI filter testers have been used in quality control and manufacturing by leading filter and filter media manufacturers and reference test institutes around the world for more than 20 years due to their proven durability and reliability



FIT TESTING (INWARD LEAKAGE TEST)

(OSHAS -29CFR 1910)

The TSI Porta count is one of the most innovative respirator fit tester which can quantitatively fit test all types of respirators - gas masks , SCBAs , respirators , even N95 , P1 and P2 disposable (filtering - facepiece) respirators . the fastest , It is the easiest and best HSE (UK) and OSHA (US) -compliant fit test method .

Other Value Added services

Research & Development



We are conducting the Manufacturing industry-oriented research by aiming at a problem-solving approach with innovative solutions.

Consultancy



Our consultancy service covering In house Lab setup, Upgradation of existing laboratory, Lab accreditation, product development, product certification (USFDA, CE Marking, BIS Marking), Quality management system, Technical & social compliance audit Etc

Training



We offer designated training to program to all the persons including the laboratory person, Production & quality person.

Our Esteemed Customers

Medical Textiles & PPE Testing



Apparel Testing





VIRIDIAN

NABL Accredited & BIS Recognized Testing Laboratory

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