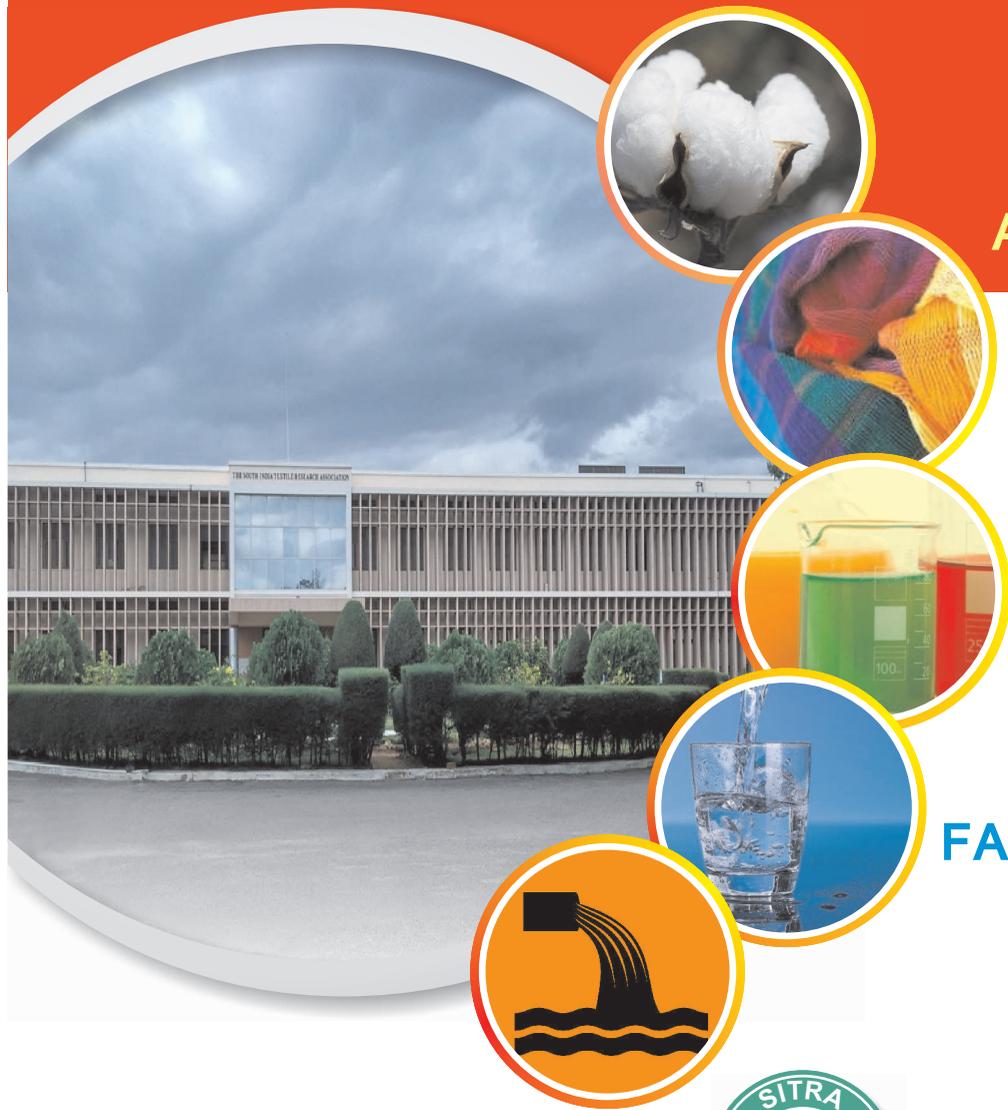




SERVICES OF TEXTILE CHEMISTRY DIVISION

To Ensure & Enhance the Quality of your Products



ACCURATE!

RELIABLE!

FASTER!



THE SOUTH INDIA TEXTILE RESEARCH ASSOCIATION (SITRA)

13/37, Avinashi Road, Aerodrome Post
Coimbatore- 641014



SITRA Chemical Laboratory is accredited by NABL as per ISO/IEC 17025:2005

SITRA Textile Chemistry Division is the one of the oldest divisions of SITRA and it offers testing, training and consultancy services to textile & allied industries as well as academic Institutions. It provides accurate, reliable and faster testing services for fibre, yarn, fabric, garment, accessories, packing materials, oil, sizing ingredients, chemicals, technical textile, water, textile effluent and soil / sludge samples using national and international standard test methods.

With 4 decades of experience and skilled manpower, SITRA Textile Chemistry Division has the expertise to meet the ever increasing demands of today's industry. SITRA's test reports are valid across the globe!

With our lab working in shifts, we are able to provide the test reports to customers quickly and ensure swift turnaround time. Our online Laboratory Information Management System (LIMS) enables the customers to track the status of their samples, view the results and take print-outs of their respective test reports online.

We also offer various training programmes for the benefit of industry as well as students / research scholars from Academia.

Raw Material Analysis

- Blend analysis
- Fibre identification
- Moisture content
- Spin finish
- Wax content
- Lubricant /oil content
- Silicone content
- Honeydew content
- Sugar content
- Hot air shrinkage
- Ash content

Apparel/ Fabric/ Garment Analysis

- Materials characterisation
- Barium activity number
- Moisture content
- Solid content
- Cuprammonium fluidity
- Degree of polymerization
- Cotton damage factor
- Dimensional stability
- Colour Fastness to light, washing, rubbing, water, dry cleaning, saliva, perspiration, sublimation, etc
- Durable press rating
- Smoothness appearance
- Flammability
- Soil release
- Stain resistance
- Computer colour matching
- Whiteness index
- Tegewa rating
- Dyeability & shade variation
- Shrinkage tests
- Print durability
- pH & Formaldehyde

New Product Analysis

- Wetting agents
- Detergents
- Softeners
- Enzymes
- Fixing chemicals
- Sizing ingredients



TEXTILE WET PROCESSING LAB

Winch / Soft flow Dyeing Machine	Textile fabric pretreatment & dyeing (Knit & Woven)
Inclined / Vertical Flammability Tester	To evaluate the burning characteristics of textile materials under controlled condition
Xenotester 150S+	To evaluate fastness to light of textile materials
Computer Colour Matching System	Colour difference (ΔE) & Dyeuptake % (Strength) between samples. CIE L, a, b values & K/S graph
Launderometer	To evaluate colourfastness and staining potential of fabrics under accelerated washing condition
Wascator	To determine the stability of fabrics and garments to washing and to investigate the effects of detergents and chemicals
IR Dyeing Machine	For sample dyeing of textile substrates
Curing Machine	Used to instantly cure or "dry" fabric coatings or adhesives, chemicals etc
Tumble Dryer	To remove moisture from a load of clothing and other textile materials, usually shortly after they are washed in a washing machine.
Padding Mangle	For dyeing and finishing applications.
Spray Tester	To determine the resistance of fabric to surface water repellency
Crockmeter	To determine the colour fastness of textile materials against rubbing
Perspirometer	To determine the colour fastness of textiles to perspiration (alkaline & acidic)

ECO ANALYSIS

Pre-requisite tests for **Oeko-tex & GOTS**

Aromatic amines

Formaldehyde (Free & Releasable)

Pentachlorophenol

Chlorinated biphenyls

Organo-Tin compounds

Pesticide Residue Analysis

Polyvinyl Alcohol

Heavy metals

(Antimony, Arsenic, Lead, Nickel, Zinc, Copper, Cadmium, Chromium, Tin, Mercury, Silver, Cobalt, Selenium, Boron)

Alkylphenyl Ethoxylates (APEO)

pH

Lead, Nickel & Cadmium in accessories

Skin Irritant Test

Presence of PVC

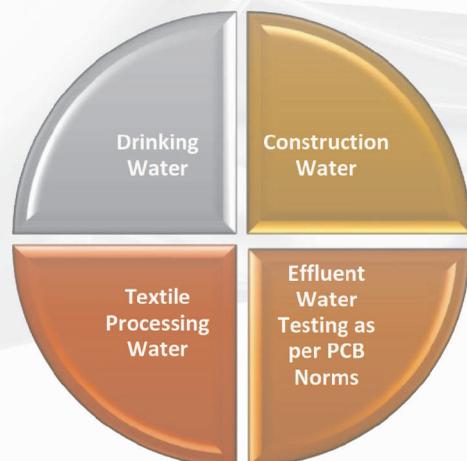
ANALYTICAL & ECO LAB

Atomic Absorption Spectrophotometer	Qualitative & quantitative analysis of heavy metals in textiles / accessories / water / waste water / soil / sludge
TOC Analyser	To analyze total organic carbon /nitrogen in water / waste water /soil / sludge / compost
UV-Vis Spectrometer	Quantitative analysis of formaldehyde in textile & textile auxiliaries, quantitative analysis of PVA in textiles / textile waste water / sizing chemicals
Differential Scanning Calorimeter	Glass transition / melting point / crystallinity % of synthetic fibres
Melting Point Analyzer	Identification of textile materials (synthetic), melting point of chemicals
HPLC	To separate, identify, and quantify individual components in a chemical mixture / product
HPTLC	For the separation of components of a mixture due to their different affinities for a stationary phase such as a solid or a liquid
Flame Photometer	To detect and quantify the metal salts viz., Na, K, Li, Ca, and Ba in various matrices
Microwave Digestor	To digest heavy metals in the presence of organic molecules prior to analysis by atomic absorption.



WATER ANALYSIS

Full-fledged facilities for testing the Water / Effluent samples for **82 different parameters** including heavy metals.



The tests are carried out as per the relevant national and international standard procedures viz.,





OTHER SERVICES

TRAINING OFFERED



- ◆ Fibre identification and blend analysis
- ◆ Process and quality control in textile chemical processing
- ◆ Water and effluent testing
- ◆ Functional skills in testing and quality control for lab technicians
- ◆ Practical aspects of wet processing
- ◆ Evaluation of functional properties of textile materials
- ◆ Defects analysis & their remedies
- ◆ Practical aspects of wet processing
- ◆ Eco-labeling and green processing of textiles

Customized training programmes are also offered based on the requirements of customers.

CONSULTANCY SERVICES



- ◆ Project appraisal for new and expansion projects
- ◆ Technical guidance for setting up of in-house quality control laboratory
- ◆ Consultancy services on technical troubleshooting
- ◆ Work assignment and Techno-economic viability study for processing units
- ◆ Process optimization to achieve desired quality parameters
- ◆ Study on the production capacity of processing units
- ◆ Study of water consumption and / or material to liquor ratio of various processing machines[@]
- ◆ Survey of processing units and submission of feasibility reports for establishment of textile parks and / or common effluent treatment plants.

[@] *SITRA is recognized by the TamilNadu Pollution Control Board (TNPCB) for conducting water consumption audits at chemical processing units.*

TESTING SERVICES OFFERED FOR



TEXTILES & APPARELS



AGRICULTURE



DRUGS & MEDICAL DEVICES



OIL, WAX & LUBRICANTS



SUGAR & SPICES



LEATHER, TOYS & ACCESSORIES



FOOD & HERBS

For more details, please contact:

Textile Chemistry Division
The South India Textile Research Association (SITRA)
 13/37, Avinashi Road, Aerodrome Post
 Coimbatore - 641014, India
 Phone: +91 422 4215334, 328, 2574367-9
 Fax: +91 422 4215300
 E-mail: chem@sitra.org.in, ssk@sitra.org.in

Tirupur office
SITRA Textile Testing and Service Centre
 No. 525, 1st Floor, K.P.K. Complex
 Pushpa Theatre Bus Stop, Avinashi Road
 Tirupur - 641 602, India
 Phone: +91 421 4530443
 E-mail: tpchem@sitra.org.in

Visit us at : www.sitra.org.in