

# Your Reliable Partner

With more than 50 years of expertise as well as experts in various fields, the FITI supports customers to receive all of necessary services through one-stop process.

# Better Than The Best !

## More than the Best...

FITI Testing & Research Institute  
provides accurate and quick services through  
continuous self-development and  
technological innovation based on expertise and  
technology that have been accumulated for more than 50 years.

As a satisfactory and reliable partner for  
customers and as a partner growing along with  
customers, we will keep putting our best effort !

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# HISTORY

## Corporate History

- 1965. 03. Established Textile Inspection Center under the Korea Federation of Textile Industries
- 1969. 04. Received National Accreditation for the Foundation of Korea Textile Center from the Ministry of Commerce and Industry (Notice No. 5240, License No. 117)
- 1994. 04. Renamed as Korea Thread Textile Testing & Research Institute
- 2003. 02. Established Yantai center in China
- 2005. 05. Renamed as FITI Testing & Research Institute
- 2005. 11. Established Shanghai branch in China
- 2007. 12. Established Qingdao center in China
- 2010. 10. Established Fashion testing center at Jayang-dong of Seoul
- 2011. 10. Established Industrial environment testing center at Ochang of Cheongju
- 2011. 11. Established Jakarta center in Indonesia
- 2012. 03. Established Los Angeles branch in the United States
- 2012. 10. Established Shanghai testing lab. in China
- 2013. 05. Established Ho Chi Minh branch in Vietnam
- 2013. 07. Established Dalian center in China
- 2014. 02. Established Guangzhou center in China
- 2015. 11. Established Ho Chi Minh testing lab. in Vietnam
- 2016. 09. Established New York center the United States
- 2018. 11. Moved to New Headquarters at Magok-dong of Seoul

## Assignment History

- 1986. 10. Designated as Ship's Articles' Type-Approval Testing Laboratory (Korea Maritime and Port Administration)
- 1986. 10. Designated as National Mirror Committee of ISO/TC38 (Textile)
- 1994. 04. Designated as KOLAS institution of Testing and Inspection (Industrial Advancement Administration)
- 2004. 03. Designated as National Mirror Committee of ISO TC 221 (Geotextile)
- 2007. 01. Designated as an Industrial products' Testing Lab of Self Safety Verification (Korean Agency for Technology and Standards)
- 2007. 04. Designated as the Hub Standards Organization in Textile - de facto Standard (Korea Standards Association)
- 2007. 07. Designated as National Training Body for AATCC Standards Testing (FITI only in Korea)
- 2008. 05. Designated as Safety Certification Body of Industrial products (Korean Agency for Technology and Standards)
- 2009. 01. Designated as KAS Accredited Product Certification Body (Korea Accreditation System)
- 2009. 02. Designated as COSD (Co-operating Organization for Standards Development) (Korean Agency for Technology and Standards)
- 2009. 07. Designated as Reliability Certification Body of Textile Material Industries (Ministry of Trade, Industry, and Energy)
- 2011. 02. Designated as Product Accident Investigation Center (Korean Agency for Technology and Standards)
- 2012. 03. Designated as Soil Testing & Soil Pollution Investigation Body (Geum River Basin Environmental Office)
- 2013. 01. Designated as Quality Control Verification Body in Waste (National Institute of Environmental Research)
- 2013. 04. Designated as Testing Body of Environmental Hazards (National Institute of Environmental Research)
- 2013. 04. Designated as Testing Body of Malodor (National Institute of Environmental Research)
- 2013. 04. Designated as IMO Recognized Test Lab for FTP Code Part 7, 8, and 9 (International Maritime Organization)
- 2014. 04. Designated as Measuring Agency of Quality in Water, Air, and Indoor Air (Chungcheongbuk-do Provincial Office)
- 2014. 07. Designated as Testing Body of Drinking Water Quality (Geum River Basin Environmental Office)
- 2015. 02. Designated as Construction Technique Service Body
- 2015. 04. Designated as Air Quality Management Agency (Chungcheongbuk-do Provincial Office)
- 2015. 06. Designated as Safety Certification Body and Safety Confirmation Testing Body of Children's Products (Korean Agency for Technology and Standards)
- 2015. 12. Designated as Testing Body of Products of Risk Concern (Ministry of Environment)
- 2016. 04. Designated as Testing Body of Cosmetics (Ministry of Food and Drug Safety)
- 2017. 01. Designated as IDFB Testing Body (International Down and Feather Bureau)
- 2017. 03. Designated as Confirmation Testing Body of Construction Material Pollutant Release (Geum River Basin Environmental Office)
- 2018. 07. Designated as Testing Body of Hygiene Products (Ministry of Food and Drug Safety)



## The 1<sup>st</sup> Designated KOLAS Institution of Testing and Inspection

FITI Testing & Research Institute is the first KOLAS testing body by KOLAS (Korean Agency for Technology and Standards) under the Ministry of Trade, Industry, and Energy. With more than 50 years of expertise as well as experts in various fields, the FITI supports customers to receive all of their necessary services through one-stop process.

## Comprehensive Testing & Certification Institute

FITI Testing & Research Institute has professional manpower, leading-edge testing technology, and high-tech equipments to serve integrated solutions of testing, inspection, certification, factory audit, R&D, education & training, RCA (root cause analysis), and others in a variety of industrial and environmental fields such as apparel, daily supplies, construction materials, automotive materials, water, air, soil, waste, etc.

## Global FITI

FITI Testing & Research Institute has overseas branches in Los Angeles and New York of the United States, Shanghai, Qingdao, Yantai, Dalian, and Guangzhou of China, Jakarta of Indonesia, and Ho Chi Minh and Hanoi of Vietnam. Through business partnerships with other well-known foreign testing institutions, the FITI has the international networks to provide customer-centered services anywhere in the world.

## WHAT WE DO



### Testing

The FITI provides testing service in order to deal with customers' needs for not only a broad range of daily supplies including apparel, shoes, and miscellaneous goods, but also industrial materials with automotive components and vessel goods. In addition, as a comprehensive testing & research body, the FITI performs the quality analysis of environmental factors such as water, air, soil, waste, etc. on top of that. For customers to enhance their competitiveness and to lead their growth continually, the FITI put the utmost effort to give quick and accurate service of testing and analysis.



### Inspection

The FITI offers inspection service for conformity assessment to be complied with requirements of buyers in various forms of inspection such as sampling, total, warehouse, and on-site. The FITI conducts visual inspection service for fabric, clothing, and some other miscellaneous goods mainly at country of origin, for instance, China, Vietnam, Indonesia, etc., and it is sufficient to meet customers' needs as well as demands of buyers in terms of stringent quality control.



### Certification

The FITI serves certification service regarding quality and safety of diverse products like textile materials, apparel, bedding, industrial materials, etc. Moreover, the FITI was designated as SF (Sanitary Finished) certification body by KOLAS, so the FITI guarantees expected performance in terms of sanitary finish. FITI put much effort into providing reliable certification service to customers, through a number of certification forms like functionality, cashmere, eco, safety, etc.





## Auditing

The FITI has been developing and operating auditing programs in order to evaluate and certify feasibility of production systems related to quality, environment, and labor of plants, and others. Since the FITI manages the third-party audit program, it has been developed in various forms complying with companies' requests in order to verify their circumstances objectively through audits such as workplace condition, safety and social compliance, sustainability management, etc., and thus, the FITI has been able to contribute to building consumer confidence and trust.



## Training

The FITI provides education and training programs for encouraging customers to accumulate their necessary expertise, so ultimately intend for their better working performances. The education and training programs in general and specific are opened regularly, and customized programs are held as requested, so customized hands-on instruction for a small group is also possible anytime and anywhere. Moreover, the FITI has been only designated as the training body in KOREA by AATCC (American Association of Textile Chemists and Colorists), thus AATCC Textile Technician Certification program is held in particular.



## Consulting

As a high-quality consulting service provider, the FITI helps customers to maintain their optimized quality control system and to be able to promptly deal with the change of such as safety regulations and international laws, etc., through producing their management instruction, updating their manuals, and some other effective tools. Besides, the FITI with précising analysis equipments and a lot of experts has offered particular services like root cause analysis, surface analysis, protein fingerprinting analysis, and the valuation service for court cases, etc. to deliver fundamental solutions in terms of customer-satisfaction.



## R&D

The FITI performs professional research activities on the subject of establishment or revision of national & international standards, development of group standard (hosted by KSA), improvement of safety standards for consumer goods, and related technical supports. In addition, the FITI carries out ALT (accelerated life test) of industrial materials, through developing reliability certification and evaluation performances under national projects like reliability improvement business and reliability-tech diffusion business. Furthermore, the FITI supports new technology evaluation in product safety for government and industry, and also runs joint technology development business within the industry - university - institute collaboration.

# Apparel & Consumer Goods

FITI Testing & Research Institute is an outstanding textile & apparel testing lab working with well-known global brands such as Polo Ralph Lauren, Forever 21, Guess, Marks & Spencer, etc., so the FITI has been recognized as a representative lab of Korea since the FITI is highly rated for its competitiveness of testing, inspection, certification and audit by the brands.





# Testing

When it comes to the most fulfilling testing service, the FITI is considered above any other labs. The FITI provides high speed testing service with relatively low-cost, and offers customized services like quality control program, manual-making, defect rate management, etc. Since the FITI was established as a governmental testing lab at 1965, the FITI has been able to focus on leading the customers to the growth and development rather than making a profit. Besides, the aim of FITI, contributing customers' success is continuing constructively.

## Quality Test

- Construction Test (Stitch Density, Counts of Yarn, Fabric Width, Weight, Thickness, etc.)
- Strength Test (Tensile, Elongation, Tear, Bursting, Seam Properties, Bonding, etc.)
- Performance Test (Abrasion, Pilling, Snagging, Wrinkle Recovery, Stretch & Recovery, etc.)
- Composition & Identification Test (Qualitative/Quantitative Analysis, Microscopic method, etc.)
- Colorfastness Test (Washing, Light, Crocking, Water, Bleaching, Sea-water, etc.)
- Dimensional Stability Test / Durability Test (Washing, Drycleaning, Steaming, Ironing, etc.)
- Flammability Test (General Cloth, Sleepwear, Furnishing, Blanket, Camping Tentage etc.)
- Care Instruction, Label Review

## Safety Test

- KC (Korea Certification) - Safety Certification, Safety Confirmation
- Product Safety Control (Post Market Surveillance)
- Supplier's Declaration of Conformity
- GB Testing
- CPSIA, California Prop.65
- REACH, OEKO-TEX Standard 100

## Functionality Test

- For Comfort : Water Vapor Resistance/Permeability, Surface Resistivity, Drying Rate, etc.
- For Thermal Resistance : Sweating Thermal Manikin Test, Thermal Insulation, Evaporative Resistance, Air Permeability, etc.
- For Convenience : Crease Resistance, Soil Release, Water/Oil Repellency, etc.
- For Sanitation : Anti-bacterial Test, Mildew Resistance, Biodegradability, Mite Test, etc.
- For Safety : UV Protection (UPF), Flammability, etc.

## Animal Fiber (with MALDI-TOFF Analysis) / Down & Feather / Leather / Fur Test

- Animal Fiber : Fiber Composition Analysis, Fiber Identification Test (Cashmere, Camel, Yak, Angora, Alpaca, Wool, etc.)
- Down & Feather : Filling Power, DWR, Penetration Resistance (Down Proofness), Color Separation, Odor Test, Net Weight, etc.
- Leather Identification Test (Goat, Cow, Sheep, Pig, etc.)
- Fur Identification Test (Mink, Fox, Chinchilla, Rabbit, Lamb, Raccoon, etc.)



# Inspection

With global networks, the FITI has had an excellent reputation from customers through inspection services on fabric, apparel, and other fashion goods no matter where it is produced, along with post management service. Especially, post management service after inspection gives higher satisfaction to customers in terms of handling complaints and dissatisfactions from their marketplace.

## Inspection Item

- Fabric (Woven, Knit), Apparel, Bags, Footwear, Fashion Accessories, and Sewing goods, etc.

## Inspection Method

- Sample Inspection, Total Inspection, Warehouse Inspection, On-site Inspection, etc.

## Inspection Point

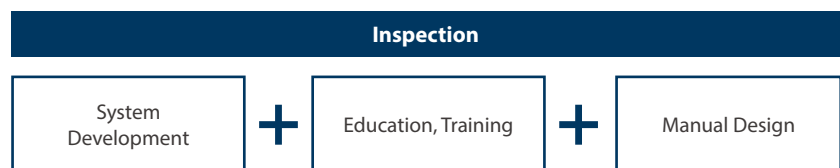
- Appearance, Size, Color, Texture, Bow, Skew, Attachment, Sewing, Cutting, Seam, Stain, Needle Check, etc.

## Inspection Stage

- Line Inspection, Pre-Production / Initial Inspection, During-Production Inspection, Pre-Shipment / Final Inspection

## WHY FITI

The FITI provides professional and integrated services.



## The FITI provides inspection services in products' country of origin.

The FITI has created a strong global network in order to provide convenient and flexible inspection services to customers. Customers can receive on-site inspection service by professional inspectors visiting customers' factories or warehouses. The inspectors offer detailed inspection service from pre-production to final stage, and plus, they serve post management service after finishing inspections in order for customers' better supply chain management and quality improvement.

### China

Beijing, Shanghai, Qingdao, Yantai, Guangzhou, Tongguan, Shenzhen, Dalian, Suzhou, etc.

### Southeast Asia

Indonesia, Vietnam, Myanmar, Cambodia, Thailand, etc.



# Certification

The FITI has offered certification programs that can improve product's safety and performance, and also protect market consumers.

## KC (Korea Certification) Mark

KC Mark is compulsory for industrial products on the market in Korea, and the FITI can authorize it. In terms of KC Mark, Safety Certification, Safety Confirmation, and Product Safety Control (Post Market Surveillance) are the main services that the FITI provides for customers.



## Q Mark

Q Mark is a certification mark to qualify the excellence of products through strictly required testing, quality check, and evaluation. It helps customers to have a better market position with their products' technical progress.



## SF (Sanitary Finished) Mark

As far as Sanitation is concerned, SF Mark is considered to prove their credibility. Industrial products that have passed strict standards of safety and performance in terms of sanitary code are possible to obtain SF Mark from the FITI under KAS (Korea Accreditation System).



## Cashmere Mark

In Korea, the FITI is the only recommended body by CCMI (Cashmere and Camel hair Manufacturers Institute) to help producers and sellers of cashmere. Cashmere mark is severely provided when the product of cashmere content comes up to a standard, in order that the product with the mark can be trustworthy for customers.



## Eco Mark

Eco Mark is a certification given if a product is approved to be made without toxic substances or hazardous materials. There is a growing tendency to live in a better and healthier environment and condition, so the standard of Eco Mark is given by FITI under KAS through exhaustive process to reflect the public.



## HEPI (Humanity, Environment, Product Quality, and Integration) Mark

When CSR (corporate social responsibility) is considered, HEPI Mark would be necessary to be provided, and if so, the company shall go through comprehensive evaluation of humanity, environment, labor, and product quality. CSR (Corporate social responsibility) goes beyond any of marketing in business field nowadays and therefore, working with FITI, HEPI certificate authority, will be an excellence choice to promote CSR.



# Audit

The FITI serves a comprehensive audit program to verify from production capacity and quality control to safety and social compliance. The FITI Auditors systemically assess factory's quality system as well as workplace condition for customers to improve their performance, and along with the sustainable approach for their social responsibility.

## Factory Evaluation

The comprehensive evaluation is provided for the factory audit program.

- Production facilities, quality control systems, the process management in pre-production, during-production, and final stage, handling and disposal of defective products, information management, communicating performance, complaint handling, etc.

## Social Compliance Audit

The social compliance audit is a significant program for monitoring the efforts of compliance in accordance with global standards of human rights and labor environment.

- Prohibition of Child Labor and Forced Labor
- Prohibition of Discrimination and Punishment
- Prohibition of Harassment or Abuse
- Secure Workplace
- Right of Assembly and Collective Bargaining



# Industrial Materials

FITI Testing & Research Institute performs analysis and evaluation services in a wide range of industrial materials and components used for the industry of civil engineering, construction, automotive, shipbuilding, maritime, etc. Also, the FITI, as a comprehensive one-stop solution provider, offers customizing services such as performance certification, consulting, on-site testing, and R&D so as to maximize customers' satisfaction.



# Safety

The FITI provides precise safety testing and evaluation services in the field of various industrial components to ensure people's safety.

## Road Facilities

- Evaluation of road safety facility to secure safe and smooth communication of road traffic and complement the poor structure of roads
- Testing of Retro-Reflecting Performance in dark tunnels
- Impact testing of Tubular Marker (FITI only in Korea)
- Dedicated testing of Road Marker, Tubular Marker, Delineator, Reflector, Reflective material, Police Signpost, etc.

## Hazardous Substances

- Comprehensive services like testing, analysis, material assessment, consulting, education in reference to hazardous substances restriction for the safety of public facilities
- Dedicated testing of materials in Flooring, Filter, School Athletic Facility, Automotive, Construction, etc.

## Fire Protection

- Having experts and high-tech equipments for testing Flame Retardant, Flammability, Inflammability, etc. based upon the Fire Services Act, The Life Safety Code, The Building Code
- Dedicated testing of materials in Automotive, Plane, Construction, Tent, Furniture, Technical Textile, etc.

## Leisure Sports

- First ever development and assessment lab of Safety Performance Testing in equipments of Ski and Snowboard in Korea
- Dedicated Testing of Life Vest and other articles of Water Activities against safety accident

# Marine

The FITI conducts comprehensive services like testing, inspection, audit, consulting for various marine supplies such as life vest, life raft, and rescue boat, etc. as a designated body under The Ministry of Maritime Affairs and Fisheries.

- Maritime Safety Testing Lab, especially only designated lab in Korea for testing the items of Buoyant Apparatus, Life Jacket, Life Raft, etc.
- Type-Approval Testing Lab in accordance with Article 59 - 5.2 Enforcement Decree of the Fishing Vessels Act
- First Ever Listed in Korea as a Recognized Testing Laboratory on the subject of the International Code for Application of Fire Test Procedures (MSC.61(67)), for FTP Code Part 7 (Test for Vertically Supported Textiles and Films), 8 (Test for Upholstered Furniture), 9 (Test for Bedding Components)





# Industrial Materials

The FITI supports customers for such test needs providing analysis and evaluation services of core industrial materials applied on overall manufacturing fields as well as supply chains across industries.

## Rubber

- Testing and Analysis in physical and chemical properties of Natural Rubber, Synthetic Rubber (SBR, NBR, CR, etc.), Silicon, Latex, Urethane, and other various rubber types used for industrial purposes
- Rubbers for Packaging, Gasket, Conveyor belt, Gas mask, Kitchen supplies, etc.

## Metal

- Testing and Analysis in physical, chemical and mechanical properties of various metal components and materials
- Metals from Mechanical components, Electric devices, Jewelry, and subsidiary materials of Fashion goods, etc.

## Film

- Testing and Analysis in physical and chemical properties of Film and Polymer substances
- Optical films for electronics, Film used for Plastic bag, Vinyl products, Window tinting, etc.

## Flooring

- Testing and Analysis in physical and chemical properties, especially for Abrasion, Distortion, and Shock Absorption of flooring applied for Theater, Plane, and Building, etc.
- Flooring materials such as Floor paper, Wooden Floor, Carpet, Tile, etc.

## Interior Products

- Testing and Analysis in physical and functional properties such as UV protection, Flammability, Flame Retardant, Strength, etc. of interior products
- Products and subsidiary materials used for interior like Curtain, Blind, Mat, etc.

## Artificial Turf

- On-site and General Testing and Analysis in physical, chemical and functional properties of Artificial Turf and Track at school playground and public outdoor sports facilities
- Providing services by means of FIFA-certified testing equipments
- Conducting research activities with the Ministry of Culture, Sports, and Tourism and KSPO(Korea Sports Promotion Foundation)
- Testing in particular for Shock Absorption, Vertical Distortion, Skin Friction, the Ball Force of Rolling and Repulsion, Hazardous substances, etc.



# Construction

The FITI has been designated as a lab testing materials of civil engineering and construction. Moreover, the FITI has been granted accreditation for the designated geosynthetic test method in accordance with the GAI-LAP (Geosynthetic Accreditation Institute – Laboratory Accreditation), so the FITI has been possible to offer high-quality service in the field of geosynthetics.

## Geosynthetics

- Testing and Analysis in physical and functional properties such as Composition, Weight, Thickness, Strength, Elongation, Permeability through Saturated clay, Drainage, etc.
- Products or Materials of Woven/Non-woven Fabric, Geocomposite, Prefabricated Plastic Drains (PBD, PDB, PVD), Geogrid Net, Geomembrane, Bentonite, Reinforcing Belt, Mat, etc.

## Steel

- Testing and Analysis in physical and functional properties such as Strength of Tensile, Compression, Shearing, Folding, Flexing, etc.
- Products and Materials of Deformed Bar, Rounded Bar, H-Pile, Couplers, etc.

## Concrete

- Testing and Analysis in physical and functional properties such as Tensile Strength, Compression, Shearing, Flexing, Curing, Density, Yield, Air content, Slump, etc.
- Ready-mixed Concrete and Asphalt Concrete

## Aggregate

- Testing and Analysis in physical and functional properties such as Sieving, Compaction, Chloride contents, Particle Density, Water Absorption, etc.
- Sea sand, Crushed aggregate, and Recycled aggregate

# Automobile

For the companies of automotive and automotive components, the FITI provides automobile total solutions in the field of application components, interior/exterior materials, and batteries in terms of reliability, electrical characteristics, electromagnetic wave, defect cause analysis and others in response to the standard of ISO, Hyundai, KIA, Renault Samsung, General Motors, Volkswagen, Peugeot, etc.

## Automotive Application Component

- Defect cause analysis through SAM (Scanning Acoustic Microscope), SEM (Scanning Electron Microscope), X-Ray, etc.
- Defect cause analysis of Lead-free solder joints in electrical/electronics

## Automotive Application Component and Battery

- Testing and Analysis in functional property such as Temperature/Humidity, Thermal Shocking, Salt Mist, Dust, Waterproof, etc.
- Testing and Analysis in mechanical property such as Vibration, Shock, Drop, etc.
- Testing and Analysis of Electrical characteristics and Electromagnetic Wave

## Automotive Interior and Exterior Materials

- Testing and Analysis in physical property such as Tensile Strength, Hardness, Shrinkage, Scratch, etc.
- Testing and Analysis in functional property such as Light-Exposure/Light-and-Water-Exposure, Burning behavior, etc. of Plastic, Rubber, and others
- Testing and Analysis in chemical property, Hazardous substances and Toxic chemicals of Electrical/Electronics



# Environment

Since environment was regarded as a global top issue, various testing & analysis services of living and industrial environment have been provided by FITI Testing & Research Institute. As a qualified lab, the FITI has offered the services with the purpose of carrying better environment responsibilities especially in the field of air, water, soil, waste, etc. In addition, FITI has been so much effort into the service of getting rid of harmful environmental factors to create safe living environment and prevent potential hazards for public health.





# Soil·Asbestos

## Investigation of Soil Contamination

- Investigation of soil contamination at specified facilities subject to the control of soil contamination, such as gas station and sales/manufacturing/storage facilities of oil products, under the Soil Environment Conservation Act

## Detailed Soil (Soil Contamination) Survey

- Surveying the types of contaminants, the degree and extent of contamination, etc. in any area that has exceeded or is highly likely to exceed the worrisome level through sampling and analysis of soil, assessment of ground water and subsurface geological distribution, etc.

## Verification of Soil Purification

- Verifying implementation of soil purification plan
- Verifying whether measures for soil purification have been taken with sampling and analysis of soil

## Analysis of Soil Physicochemical Properties

- Evaluation of nutrients in terms of soil productivity
- Analysis of physical and chemical condition of any soil, such as size, type, texture, moisture, temperature, pH, soil organic matter, nitrogen, phosphorus, potassium, electrical conductivity, etc.

## Analysis of Asbestos

- Conducting building asbestos inspection
- Providing agency service of asbestos buildings management
- Analysis of the concentration of asbestos contained in the soil and air

# Air

## Designated Agency of Air Pollutant Measurement

- Providing self-measurement service of air pollutant (60 kinds) targeting for air pollutant-emitting facilities and air pollution prevention facilities under the Clean Air Conservation Act

## Analysis of Specified Hazardous Air Pollutant

- Providing reference of authorization and permission about Enforcement Decree of the Clean Air Conservation Act
- Analyzing specified hazardous air pollutant according to the Clean Air Conservation Act

## Indoor Air Quality Control

- Providing measuring agency service of Indoor Air Quality Control in Publicly Used Facilities
- Measuring indoor air quality in a school building under the School Health Act

## Analysis of Malodor

- Measurement and Analysis of malodor-producing substance which causes displeasure and disgust to people as well as environmental contamination as a designated lab under the Malodor Prevention Act
- Technical support and sample analysis for malodor prevention in malodor-emitting workplace
- Analysis of 22 kinds of compound malodor and designated malodor-producing substance





# Water

## Agency Business of Water Quality Measurement

- Measurement and Analysis of water pollutants under the Water Quality and Aquatic Ecosystem Conservation Act
- Evaluation of workplace facilities for wastewater discharge and prevention

## Analysis of Specified Substance Harmful to the Quality of Water

- Providing reference of authorization and permission in terms of Enforcement Decree of the Water Quality and Aquatic Ecosystem Conservation Act
- Analysis of all of specified substances harmful to the quality of water presented at Table 3, the Enforcement Rule of the Water Quality and Aquatic Ecosystem Conservation Act

## Drinking Water Quality Analysis

- Analysis of drinking water quality under the Rules on Drinking Water Quality Standard and Inspection, etc.
- Analysis of groundwater regarding preservation and purification under the Ground Water Act

# Waste

## Confirmation Testing of Designated Waste

- Measuring concentration index of Harmful substance contained by designated waste under the Enforcement Rule of the Wastes Control Act
- Confirmation testing of designated waste regarding organic solvent (Analysis of halogenated organic pollutants)

## Analysis of Designated Waste

- Household wastes : size, ternary complex, elementary analysis, heating value, waste characterization, etc.
- Sludge/Food wastes : BMP Test, ternary complex, elementary analysis, heating value, waste characterization, etc.

## PCBs Analysis of Insulating Oil and Others

## Analysis of Marine Discharging Pollutants

- Analysis based on disposal standard of Marine discharging pollutants under the Marine Management Act



# Children's Activity Zone

## Technological examination and inspection service whether complying with the environmental safety control standards under the Environmental Health Act

- The place which is subjected to examination and inspection : Children's play facilities and classroom of nurseries, kindergartens, elementary schools, etc.
- The environmental safety control standards (subparagraph 1 to 5)

Scope (Subparagraph of Standards)	Testing & Inspection Items
1. Paint and finishing materials	Lead, Cadmium, Mercury, Chromium (VI)
2. Discharge of pollutants from paint and finishing materials	Formaldehyde, TVOC
3. Wood preserver	Chrome, Copper, and Arsenic compounds No. 1, 2, 3, etc.
4. Soil such as sand, etc.	Lead, Cadmium, Mercury, Chromium (VI) , Arsenic, Parasite (eggs)
5. Surface materials of floor made from synthetic rubber	Lead, Cadmium, Mercury, Chromium (VI) , Formaldehyde

## Confirmation testing service whether complying with the environmental safety control standards under the Environmental Health Act

- When a children's activity zone is newly set up
- When total floor area of a children's activity zone is expanded in excess of 33m<sup>2</sup>
- When total floor area of a children's activity zone is repaired in excess of 70m<sup>2</sup>

# Consumer Chemical Products (Products of Risk Concern)

## Testing and Analysis for Products of Risk Concern

- According to the Act on Registration, Evaluation, etc. of Chemicals, any person who intends to manufacture or import products of risk concern shall request testing and analysis of the products to the testing institution, and also shall verify the result whether to comply with the standard.

## Products of Risk Concern that Subjected to Testing

Existing KC Managing tems	Detergent, Synthetic detergent, Bleaching agent, Fabric softener, Polish, Adhesive, Fragrance, Deodorant
New Items	Anti-rust additive, Anti-fogging agent, Tattoo ink, Colorant/Decolorant, Disinfectant, Insecticide, Preservative

## Analysis of Hazardous Chemical Substances in Consumer Chemical Product

- Providing qualitative/quantitative analysis service of hazardous chemical substances (Biocidal substances, VOCs, etc) regarding consumer chemical products
- Providing qualitative/quantitative analysis service of guanidine composed chemical substances (PHMG, PGH, PHMB) using MALDI-TOFF (in accordance with the designation and safety-labeling standard of products of risk concern)



# Research & Development

Research & Development takes in to account diversification by government such as strengthening joint technology development, participating in original research, product development and standardization, and responding to eco-friendly production and international regulation by participating in a plan from government to develop the growth of material and manufacturing industry focusing on industry and market.

With these activities we're promoting the manufacturing innovation and commercialization support projects for textile and related industries.



# Standardization Technical Development

We are contributing to improvement of textile industries via test analysis on textile materials and related products and standardization activities for product standards. As a standard developer, for developing its own ability and constructing its base for the standardization activities, FITI is performing development and modification of national standards, development of group standards and dealing with practical international standards as a COSD (Co-operation Organization for Standards Development) institution, including participating in standard development projects along with acting as national administrator for ISO TC38 Textiles, TC 219 Floor coverings, TC 120 Leather, TC 216 Footwear and TC221 Geo-synthetic parts, supporting domestic products brought to global markets and perform activities as researching to develop and to share standards as a part of standardization activities.

- Designated as a COSD institution
- Development of group standard
- Development of consumer goods safety standard
- International standardization activity

# Reliability Technical Development

Aimed to improve the quality of industrial materials and convergence materials up to the standards of top grade, reliability assessment team certifies and provides consulting services on accelerated life, credibility certification and evaluation, and durability expectancy technical consulting in order to draw out technical leap of domestic textile industries and contribute to strengthening global competitiveness.

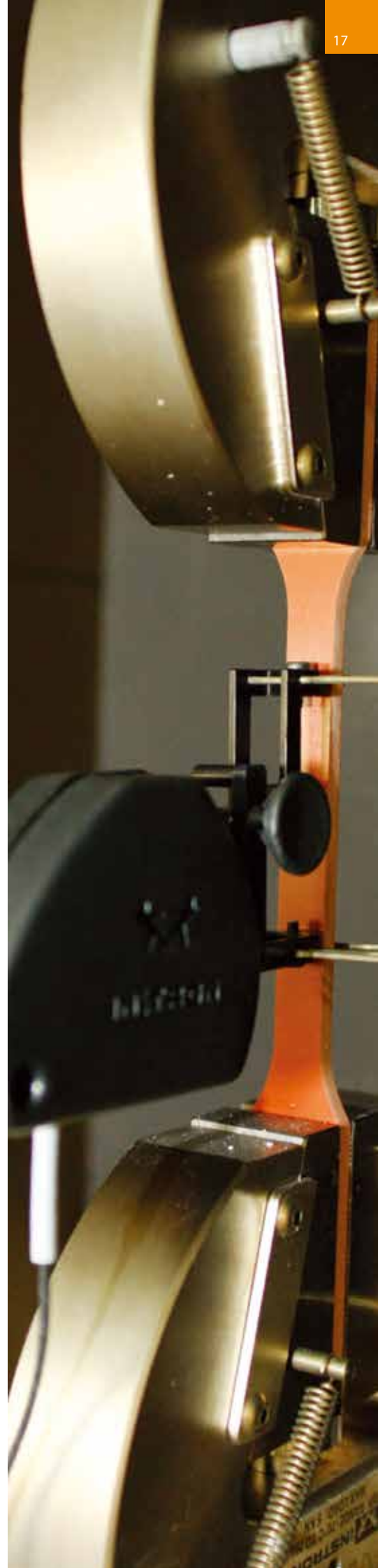
- Development of accelerated life test
- International mutual certification (R Mark – CE mark)
- International standardization of reliability technology
- Making reliability evaluation standards as internal regulations for the companies needs
- Reliability liaison for technology development support

# Collaboration R&D

We are supporting that SMEs (Small and medium-sized enterprises) improve global technical competitiveness and sustainable growth through joint research and development in the fields of textile, lifestyle, industry, military and convergence technology.

We are willing to be a global partner in R&D support leading the world's best industrial technology.

- Development or improvement of materials, components, products, and services
- Technological paradigm shift in global technology, environment, and energy issues, etc.



# Specialized Services

Besides providing general services like testing, inspection, evaluation, and others, a range of specialized services such as RCA (root cause analysis), surface analysis, protein fingerprinting analysis, etc. are offered in FITI Testing & Research Institute. With more than 50 years of expertise as well as experts in various fields, the FITI helps customers to receive all of their necessary services through one-stop process.





# Root Cause Analysis

The FITI provides accurate cause analysis service with high-tech analytical equipments in order to find defect cause (stain, discoloration, migration, stripe, and any quality defects) in the process of manufacturing, storage, and distribution, besides the finished products sold.

- Cause analysis to improve product quality in manufacturing process
- Cause analysis regarding product claims
- Appraisal service of defect dispute in civil litigation

# Surface Analysis

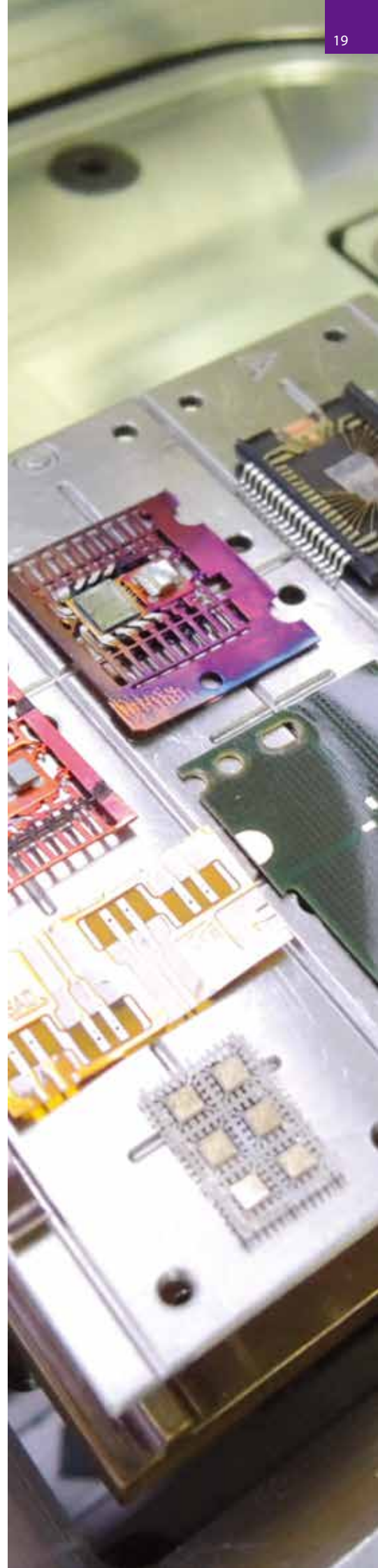
Using advanced surface analysis equipments (SIMS, XPS, AFM, EDS, SEM), the FITI helps customers to identify defective causes and solve problems like stain, oxidation, corrosion, yellowing, joint defect, and impurity, etc.

- Chemical phenomenon analysis and qualitative & quantitative analysis of chemical species on the solid surface or reacting sorption on the solid surface
- Detect and observe various phenomena (scattering, absorption, penetration, ionization by heat or electric field) that were occurred by interaction while hitting any surface with the particles made of impact by electron, ion, light, neutral atom, etc.

# Protein Fingerprinting Analysis

Mass spectrometry is important for protein studies of complex structures in which several amino acids are linked in a chain. And that is to measure, identify and analyze mass of an atom or a molecule which is an invisible element. The protein information obtained through mass spectrometry studies can be accumulated in forms of protein fingerprints containing unique characteristics with different cells, tissues, entities, and species, and the information can be used in numerous fields.

- Use as a biomarker to diagnose the onset of cancer through analysis of blood cell metabolism
- Use for the detection of avian flu viruses requiring rapid diagnosis
- Use for tracking the origin by analyzing the distribution of proteins that exhibit different patterns depending on the origin of a particular animal or plant
- Use for fiber (species) identification of apparels and household goods made of protein fiber
- Use as a basic tool for protein research in biochemistry
- Use for verifying microorganisms like bacteria and mold in microbiology
- Use for detecting food poisoning bacteria and distinguishing cuts of meat in sitology



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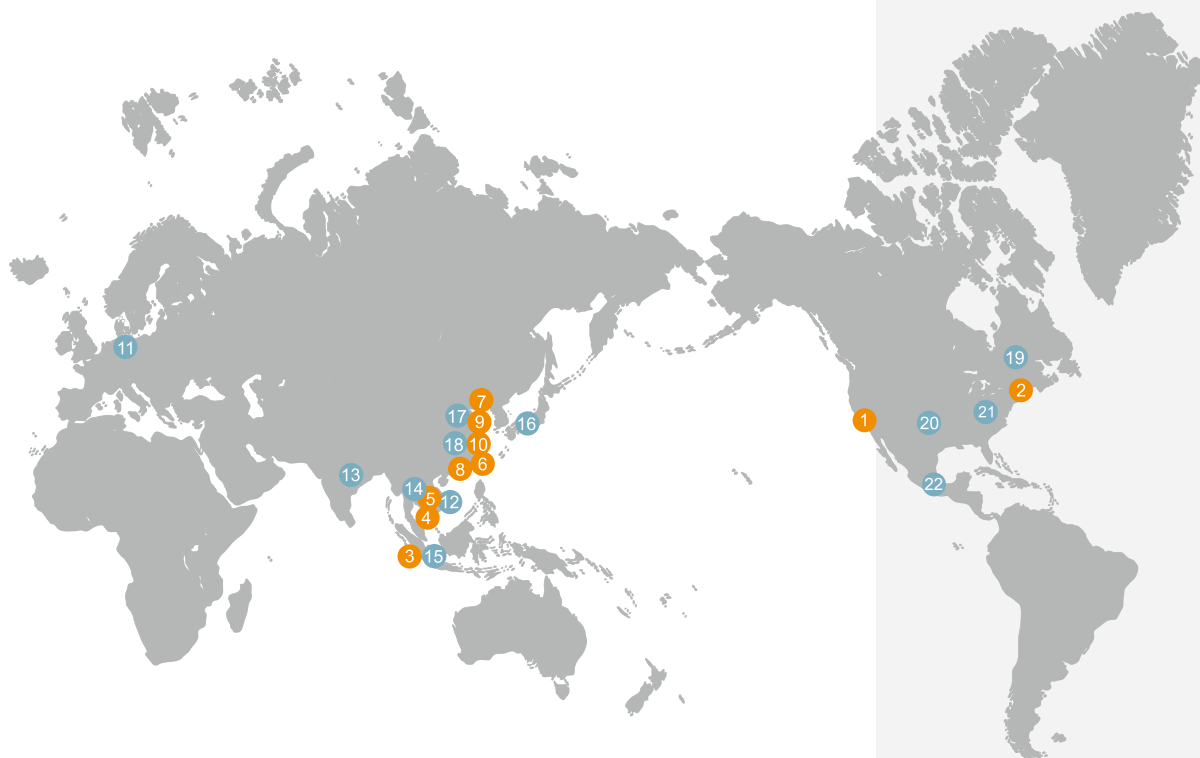
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# FITI GLOBAL NETWORK



- 1 FITI U.S.A. LA Branch
- 2 FITI U.S.A. New York Center
- 3 FITI Indonesia Jakarta Center
- 4 FITI Vietnam Ho Chi Minh Branch
- 5 FITI Vietnam Hanoi Center
- 6 FITI China Shanghai Branch
- 7 FITI China Dalian Center
- 8 FITI China Guangzhou Center

- 9 FITI China Yantai Center
- 10 FITI China Qingdao Center
- 11 Germany SKZ
- 12 Vietnam TRI
- 13 India BTRA
- 14 Thailand THTI
- 15 Indonesia SUCOFINDO

- 16 Japan BOKEN
- 17 China CTA
- 18 China CIQ
- 19 Canada CTT
- 20 U.S.A. TRI
- 21 U.S.A. GSI
- 22 Mexico INNTEX

The logo for 'fiti' is displayed in a large, white, lowercase, sans-serif font. The letters are bold and modern, with the 'i's having simple circular dots. The logo is centered horizontally and is semi-transparent, allowing the background image of a blue sky with wispy clouds to be visible through it.

# fiti

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