

Textiles, Dyes, Chemicals & Auxiliaries Testing & Inspection

India has been the home to textiles since the old silk route. Maintaining quality standards and compliance to various country specific regulations including ecological sustainability has always been a great challenge in International market.

Testtex provides full range of services for Testing, Inspection, and Consultancy involving raw material (dyes, chemicals, auxiliaries, etc.), product (fiber, yarn, apparel, footwear, bags, accessories, etc.), toys and other children articles testing to National & International Standards along with testing of effluent.

Important parameters being construction particulars, color fastness to various agencies, physical & chemical properties, performance & appearance evaluation, flammability, microbiological, genetic analysis (GMO) & other specialized tests, CPSIA, California Proposition 65 and humano-ecological requirements.

Ecological Testing for Sustainability

In these days of environmental consciousness and awareness frequently encountered buzzwords by the industry are OEKO-TEX, REACH, SVHC, GOTS, GMO, ZDHC, CALIFORNIA PROPOSITION 65, CPSIA, RSL, SDS etc.

OEKO-TEX is an important ecolabel which is widely accepted on account of absence or within tolerance amount of chemicals so as to derive "Confidence in Textiles"

REACH (Registration, Evaluation and Restriction of Chemicals) is European Union regulation, under the auspices of European Chemical Agency (**ECHA**) for the production and use of chemical substances. Based on eco-toxicological studies, a large number of chemicals have been identified as Substances of Very High Concern (**SVHC**). It is required that these prohibited chemicals are not used as industrial chemicals as well as for manufacturing of any product entering Europe.

GOTS (Global Organic Textile Standard) has defined and laid down requirement to ensure organic status of textiles. It covers processing, manufacturing, packaging, labeling, trading and distribution of textile made from at least 70% certified organic natural fibers. Chemical inputs such as (dyestuffs, auxiliaries and finishes) of all processing stages are required to be scrutinized from view point that either they themselves or as a part of any formulation or textiles produced do not contain banned, prohibited, toxic chemicals and the restricted chemicals are within specified limits.

ZDHC, an initiative taken by major apparel & footwear brands and expects manufacturer and retailers to achieve the target of zero discharge of hazardous chemicals by 2020 through adoption of green chemistry.

CALIFORNIA PROPOSITION 65 (Formerly known as Safe Drinking Water and Toxic Enforcement Act 1986) is required to be complied by companies which deal with consumer goods & retail business and do business in California, USA.

It emphasizes that consumer has the "right to know" about the non use of listed harmful chemicals which are known to cause cancer or reproductive toxicity, in the product used.

CPSIA (United States Consumer Products Safety Improvement Act) enforces the limit for lead and phthalates in products specially used by children.

Common philosophy or aim of all the above is to avoid use of Carcinogenic, toxic and non biodegradable substances; minimize use of restricted substances and practice careful and safe handling of substances which could be of corrosive or explosive nature.

Testing is important for certification related to above aspects and forms an integral part of chemical management.

Testtex with state of art laboratories and qualified personnel helps the industry dealing with or consuming chemical substances.

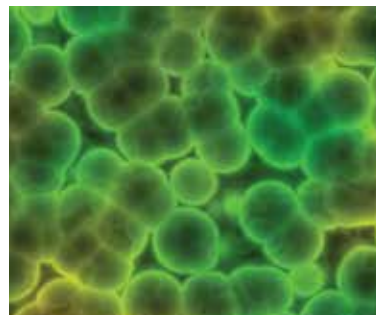


Various testing services to determine suitability of input material (dyestuffs, auxiliaries and finishes), residual chemical leftover on product formed and entering in effluent generated includes

- Pesticides
- HEAVY METALS including Hexavalent Chromium (Extractable/On digestion)
- Chlorinated Benzene & Toluene
- Chlorophenols
- Halogenated Solvents
- Ethoxylates (Nonyl phenol / Octylphenol)
- Phthalates
- Carcinogenic azo dyes
- Carciogenic & Allergenic disperse dyes
- Navy Blue colorant
- Organotin compounds
- Absorbable organic Halogen (AOX)
- Flame retardants
- Poly Aromatic Hydrocarbons (PAH)
- Volatile Organic Compounds
- Formaldehyde (Free/Released) & other short chain aldehydes
- Bisphenol A
- Glycol
- PerFluro Octonoic Acid (PFOA)
- PerFluro Octane Sulphonic Acid (PFOS)
- Short chain Chlorinated Paraffins(SCCP5)
- Dimethyl Fumerate (DMFU)
- Vinyl chloride
- Others

LATEST ADDITION

- Biochemical Oxygen Demand (BOD)
- Chemical Oxygen Demand (COD)
- Biodegradability
- Toxicity in terms of IC 50 algae(OECD 201)
- Genetically Modified Organism (GMO)



Widely used parameters for Textile, Leather and Accessories to meet National and International standards

Construction

- Fiber composition
- Count / denier of warp & weft
- Twist
- Ends & picks per unit length
- Wales & courses (thread density)
- Total count of yarn
- Type of weave
- Width
- Weight per unit area (square / linear)
- Thickness
- Others

Performance

- Tensile / bursting strength
- Tear strength
- Seam strength

- Pilling / fuzziness
- 1/3/5 wash cycles
- Sometimes upto 25 wash cycles
- Appearance
- Absorbency
- Dimensional stability to washing / drycleaning
- Tuft withdrawal force
- Pull off / attachment strength
- Others

Color fastness

- Washing
- Water
- Rubbing
- Perspiration
- Saliva
- Light

- Dry Cleaning
- Bleaching : chlorine/ non-chlorine
- Hot pressing
- Dry heat
- Scrubbing
- Ozone fading
- Others

Microbiological Test

- Antifungal Assessment and Mildew Rot Resistance
- Assessment of Antibacterial Finishes
- Antibacterial Activity Assessment by Parallel Streal Method
- Sterility Testing by Sterile Products

Appearance

- After washing / dry cleaning
- Smoothness, puckering,
- Bowing or skewing / spirality,
- Pilling fuzziness
- colour change, Self staining
- print deterioration
- Visual seam opening
- Fraying of surface & seam threads
- Effect on decoration, embellishment, zippers, accessories, labels etc.
- Others

Specialized

- Flammability (vertical / inclined)
- Flammability (carpet and rugs)
- Water repellency

- Oil repellency
- Anti bacterial property
- UV protection property
- Ageing
- Whiteness
- Color difference
- Fibre labeling
- Wash care suggestion & labeling
- pH
- PVC (FTIR)

Child Safety

- Tension/Torque test
- Small parts/Choking hazard
- Sharp points & edges
- Snap/button pull off/impact
- Zipper performance test
- Tests as per CPSIA (CPSC approved)

- Tests as per Prop 65 (California Proposition 65)
- Other Regulatory tests
- Others

Inspection

- Fabrics (4 or 10 Points)
- Garments / Other textile product AQL (Accepted Quality Level) ANSI / ASQ Z 1.4 (ISO2859-1)
- Type (Reduced, Normal or Tightened)
- Sampling Plan (Single, Double or Multiple)
- Level (I , II , III)
- Others as specified by buyers



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