## Other services

#### Cleaning products and detergents:

- Analysis and measurement of the properties of cleaning products and detergents
- Comparatives test of performances
- Recognized methodologies and technics of analysis are applied and developed from standards, decrees and european regulation.

#### Textiles, garments and cleaning

- Damaged textile items (origin and responsibility)
- Performances of the textile structures subject to various cleaning processes, recommendations, technical data checking, ...

### Professional training and consultancy

- Industrial laundry (private, health sector, associations, ...)
- Professional cleaning, dry cleaning, small size laundries, ...
- Cleaning and hygiene of housing

To complete these activities, CTTN provides the following works:

Applied researches and innovations, technology survey, standardization, dedicated to the professional textile care industry : dry cleaning, small laundry, industrial laundry





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## **Household Applicances Department**

# Study and tests for household appliances



The technological institute CTTN is a non-profit organization, independent and neutral, specialized in the scope of the **textile care**.

CTTN is a singular structure dedicated to the textile care industry and to the consumers, but also to upstream actors as manufacturers and distributors.

Its skill is based on three main expertise fields: textile / cleaning product / cleaning equipment and processes, completed by the cleaning of the dishes, hard surfaces and housing and by the hygiene in the health houses.









CTTN has a precise and complete vision of the "cleaning world", continuously renewed, and offers it to its customers and to other actors.

## Ease of use and performances of household appliances

The studies and tests offered by CTTN targets the following equipments: Washing-machine, driers, iron, steam generator, iron table, vacuum cleaner, steam cleaner, ...

These equipments are linked to the textile care, including textile furnishings and also to hard surfaces cleaning for some of them. Although, the dish-washer complete this list.

Thanks to its expertise largely recognized by the manufacturers, CTTN contributes to the innovative technologies, and to the improvements of these equipments, of their performances and to the ease of use. The distributors use also the CTTN services with the same goal.

A lot of comparative tests are also realized using specific methodologies for the consumer unions. These studies are made on some samples or on greater batches of samples. Complete test reports are generated, with the detail of the individual measurement results, quotations and comments linked to the performances and to the ease of use, including for desabled.

CTTN realizes also this type of tests according to European (EN) and International (IEC, ISO) standards, particularly in the framework on the Energy Label.

## **Equipments currently on test:**

- Washing machine
- Dryer
- Vacuum cleaner
- Iron / steam generator

- Iron table
- Dishwasher
- Steam Cleaner



## Examples of tests:

## Washing machine

- Washing efficiency
- Spinning efficiency
- Rinsing efficiency
- Wrinkling of the linen, dimensional stability
- Energy and water consumption
- Program characterization, duration

## Dryer

- Drying efficiency, residual humidity rate
- Drying homogeneity
- Wrinkling, dimensional stability, linen wearing
- Condensing efficiency
- Energy consumption and efficiency
- Program characterization, duration

## Dishwasher

- Drying efficiency, residual humidity rate
- Drying homogeneity
- Cleaning dishes
- Filters effectiveness monitoring
- Energy consumption and efficiency
- Program characterization, duration

#### Vacuums

- Cleaning efficiency on different kinds of floor
- Characterization of airflow and vacuum
- Dust emission and filter efficiency
- Durability of engine and cable reel

## Irons and steam generators

- Sole temperature and homogeneity
- Steam rate, spraying rate
- Duration under scaling (dynamic scaling for irons)
- Duration of the cable





With the other types of equipment that CTTN can study, most of time, these tests are generally associated to:

ease of use appraisal, adaptation to disability, noise characterization, safety checking.

From its triple skill CTTN is placed to the center of the cleanliness and of the textile and garments cleaning. This thematic is in connection with the industrial laundry and health sectors, the dry cleaning sector, the household cleaning including producers, manufacturers, distributors and consumers and the textile and garment industry. CTTN acts also in the field of the dishes and hard surfaces cleaning and of the hygiene of housing.

All these aspects of the cleaning industry are integrated in the service offering of CTTN which performs currently researches, tests, expertizing, training, consultancy and audit for all the actors of these above mentioned activities.

Beyond the processing management, productivity, performances and convenience, CTTN develops a transverse offer on scopes as sustainability, environment, quality and hygiene management, specifically in the industrial and professional textile cleaning sectors.



