

C E N
T E X
B E L

textile finishing



technological platforms

Textile finishing is an important step in the entire textile value chain and suited for innovative process and product development.

- ◇ textile finishing accounts for about 50% of the added value of the textile product
- ◇ implementation of innovative finishing techniques, additives and processes (sometimes already used in other industrial sectors) largely expands the application fields of textiles (medical, technical, industrial...)
- ◇ innovative and eco-friendly techniques and additives in conformity with REACH contribute to a sustainable production and ecological products

applications

Textile finishing imparts functionalities to textile products that are desired by the end-user

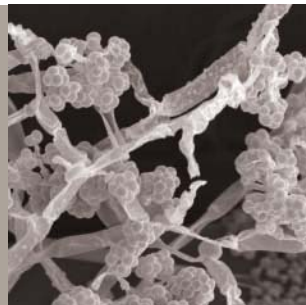
- ◇ colour and optical effects
- ◇ easy care
- ◇ water / oil repellency
- ◇ handfeel: softness, crispiness
- ◇ flame-retardancy
- ◇ antistaticity
- ◇ mothproof, anti-dustmite, anti-fungi...
- ◇ barrier properties against hazardous fluids and gases
- ◇ water / air (im)permeability
- ◇ UV resistance
- ◇ wear-resistance
- ◇ sensing
- ◇ comfort



corona treatment



hydrophobicity



fungi



permeation assessment



plasma torch

research & development

Textile finishing makes the difference! This difference is crucial to the textile entrepreneur to maintain and expand his position on the market.

CENTEXBEL's R&D projects are focussed on:

1. product development for existing and new applications by:

A. the application of emerging techniques

- ◇ plasma treatment
- ◇ UV-curing
- ◇ RF drying
- ◇ sol gel
- ◇ hotmelt

B. functionalisation by new chemicals and additives

- ◇ nanoparticles and carbon nanotubes (CNTs)
- ◇ sensitive polymers
- ◇ textile metallizing
- ◇ hydrogels

2. reduction of the environmental impact through:

A. eco-friendly finishing techniques

- ◇ application of enzymes, biopolymers, and biodegradable auxiliaries

B. recycling and reuse of wastewater

C. energy-friendly processes by

- ◇ process optimisation
- ◇ efficient combination of different processes

3. textile care and laundering processes



plasma yarn treatment



barrier test against bacteria

services

CENTEXBEL supports the industry's endeavour to constantly improve and innovate products and production processes by providing:

- ◇ technological consultancy on process optimisation, product development and testing of finished textiles, REACH
- ◇ assistance in exploration, testing and implementation of innovating processes and finished products
- ◇ process audits
- ◇ process monitoring: energy and water consumption, COD...
- ◇ problem solving
- ◇ (in-company) training sessions and seminars

CENTEXBEL's semi-industrial pilot platforms and laboratory equipment for research and testing purposes:

- ◇ laboratory scale dye and printing facilities
- ◇ fully equipped (foam, paste, powder) coating and lamination line
- ◇ pad mangle (impregnation)
- ◇ corona treatment
- ◇ atmospheric plasma with aerosol injection
- ◇ curing and drying equipment for yarns, fabrics, carpets, non-wovens...



IR dyeing



IR dyeing attributes



colour assessment



pad mangle

testing

- ◇ dyeability
- ◇ physical testing on yarns, woven and knitted fabrics and nonwoven
- ◇ burning behaviour and flame retardancy
- ◇ colour fastness to light, washing, active chlorine, water, dry cleaning, NOX gasfading,...
- ◇ colour measurements (ΔE , high-visibility, reflection, retroreflection,...)
- ◇ chemical testing (GuT, Oekotex...)
- ◇ barrier properties (permeation)
- ◇ ageing (UV, xenon, weathering, light, temperature,...)
- ◇ microbiological testing
- ◇ anti-static properties / conductivity
- ◇ stability of textile finishing formulae
- ◇ laundry efficiency
- ◇ emissions



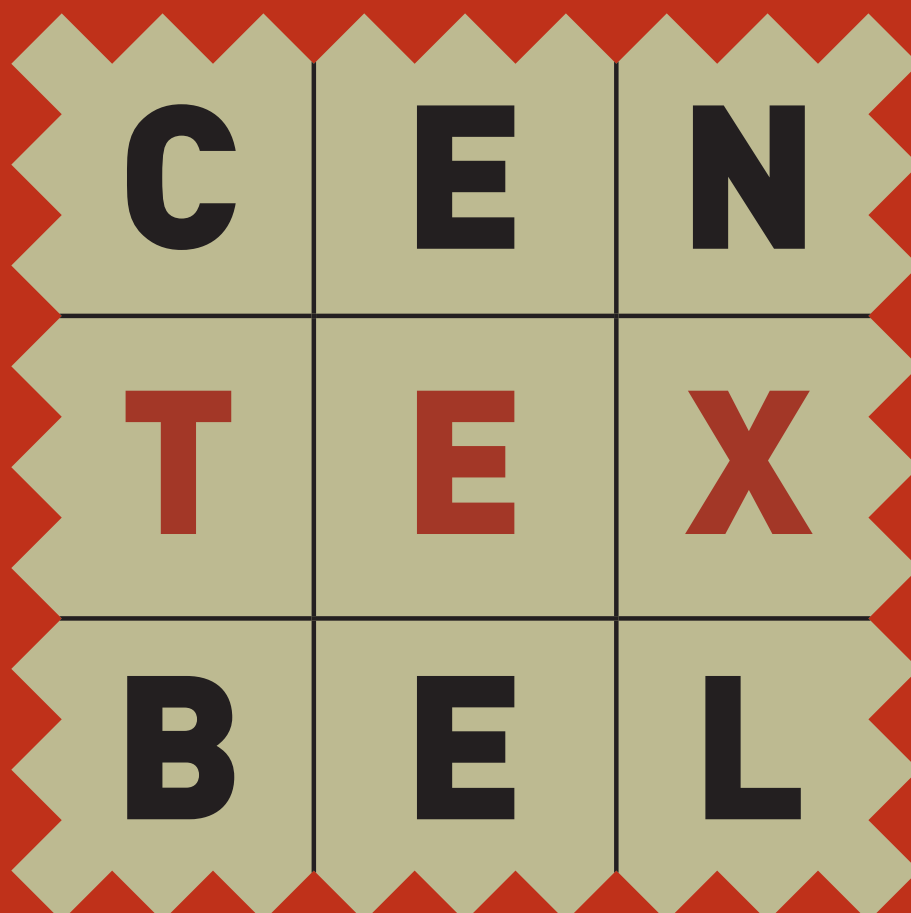
xenon test



colour measurement system



burning behaviour



your partner in textile finishing

**LIVING
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