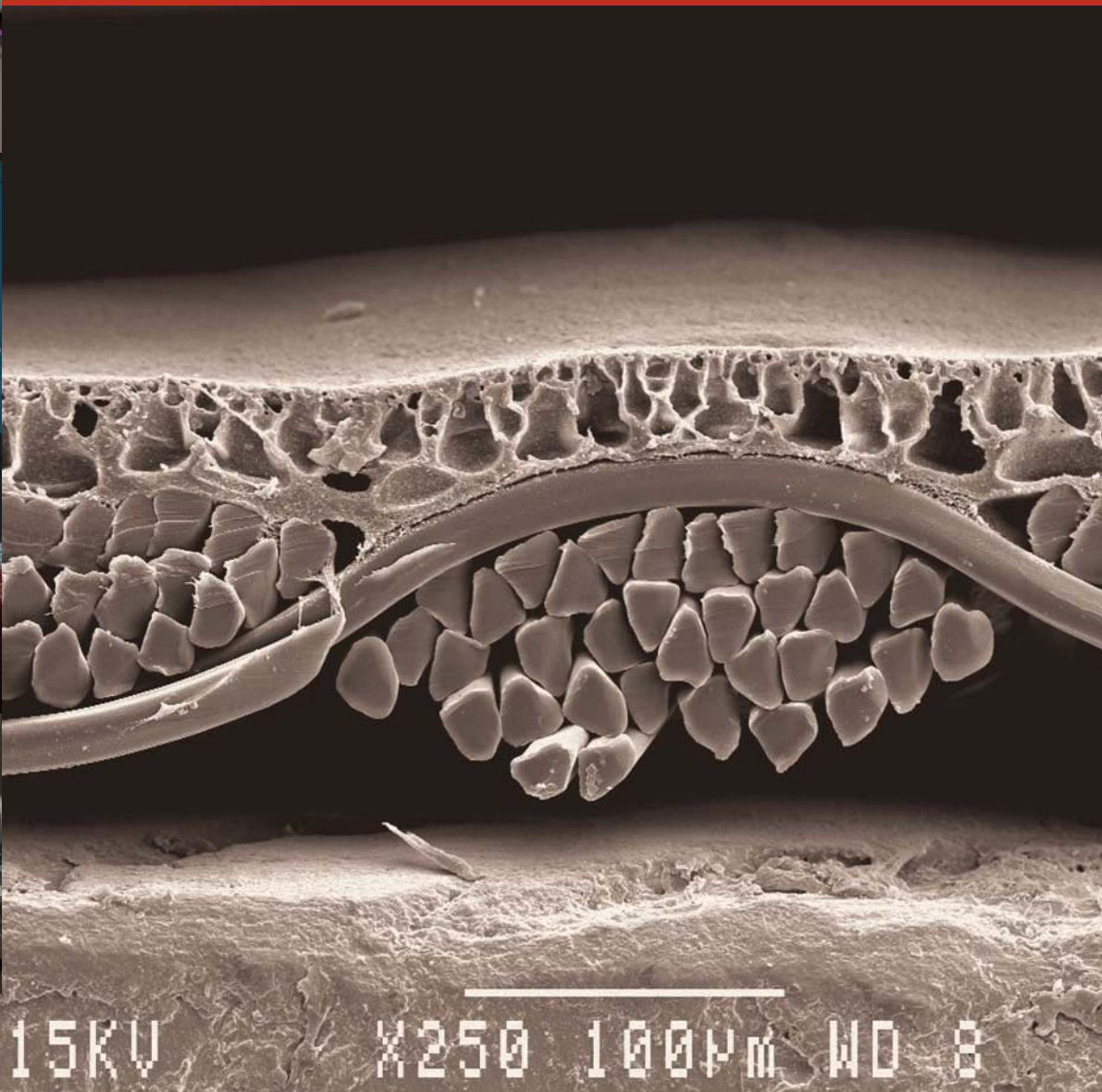


C E N  
T E X  
B E L

coating



0005 15KV X250 100µm WD 8

technological platforms

The application of various layers or the modification of surface structures allows conferring new **high performance properties** to textiles and other flexible substrates.

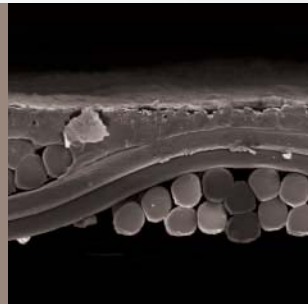
Textile **coating** (applying a layer onto a substrate) and **laminating** (glueing two or more substrates) are already common processes.

**Molecular surface modification techniques**, such as Corona and plasma treatment, are winning ground in textile production processes.

These innovative techniques are being increasingly applied in the production of both high-tech and daily-life textiles for interior decoration, transport, sports- and leisure wear, safety and protection...



coated vest for  
fire fighters



full coating layer



hydrophobicity



protective gloves

## application fields

Coating, laminating and surface modification techniques open unlimited possibilities to create new textiles for all kinds of applications :

- ◆ fire proof decoration textiles
- ◆ anti-mite bedding
- ◆ barrier textiles against micro-organisms, chemical and biological fluids
- ◆ clothing: sports- and leisure wear, protective clothing, smart clothing...
- ◆ construction and architecture
- ◆ geotextiles
- ◆ automotive
- ◆ flexible packaging (big bags ...)
- ◆ industry (filtration, sound proofing...)
- ◆ controlled release of perfumes, cosmetics and drugs

Centexbel's **multifunctional and semi-industrial coating line** and complete laboratory equipment is at the disposal of the textile industry for product development, short production runs, sampling, testing...

The coating and laminating pilot line (working width 50 cm) is constantly updated to meet the industry's needs and includes :

- ◆ pad mangle
- ◆ corona unit
- ◆ foam coating unit
- ◆ blade coating unit
- ◆ powder scatter unit
- ◆ laminating units
- ◆ coating star unit for atmospheric plasma treatment and nano-coating
- ◆ hot air stenter
- ◆ IR-fields

## research & development

Because multifunctional and high-quality materials are offering so many and often unthought-of opportunities to the textile industry and the modern consumer, they are at the core of several research projects :

- ◆ surface treatment of textiles such as activation, functionalisation (adhesion/repellency, conductivity, bio-compatibility, ...)
- ◆ aerosol-assisted atmospheric plasma treatment
- ◆ lamination of fabrics, nonwovens, carpets, foils...
- ◆ coating formulations with nano-additives, such as CNT or carbon nanotubes
- ◆ sol-gel applications
- ◆ hotmelt coating
- ◆ UV-curable coatings

## services

Centexbel actively supports the industry in its search to constantly improve and innovate products and production processes by providing:

- ◇ technological advice on process optimisation, product development and testing of coated/laminated products
- ◇ assistance in exploration, testing and implementation of innovating processes and products
- ◇ problem solving
- ◇ in-company training sessions and seminars



Centexbel's semi-industrial coating and lamination line



corona treatment



lamination unit



blade coating unit



burning behaviour of interior textile backing



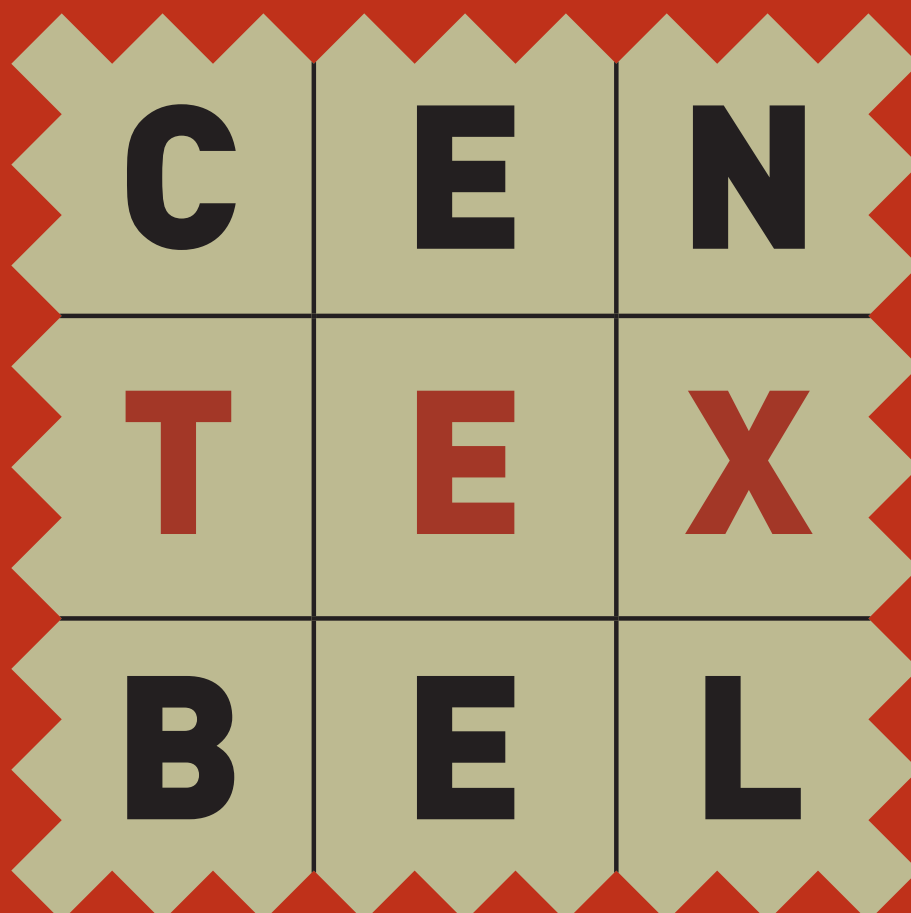
permeation of protective gloves



spray test to assess water tightness

## testing

- ◇ SEM electronic microscopy
- ◇ chemical analyses
- ◇ permeation of water, solvents and other chemicals
- ◇ oil and water repellency
- ◇ determination of tensile and tear strength
- ◇ ageing tests (QUV, fastness to light...)
- ◇ rheology of coating pastes
- ◇ resistance to abrasion
- ◇ burning behaviour
- ◇ water column
- ◇ water vapour permeability
- ◇ microbiological tests



your partner in coating

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TOMORROW<sup>®</sup>**  
PARTICIPANT

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