

## Textiles functionalization with additives for health & wellness benefits

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In our daily lives, we are confronted with energy loss, sleep deprivation, ageing, allergens, pollution, and UV “damage”. Ways have been developed to boost the textiles we sleep in and on, so that they can help to reduce the negative impact from “outside” and enhance our well-being. One approach is to make use of microcapsules, which can act as reservoirs of active ingredients that are stored and protected in the core of the microcapsule from the surrounding environment and are environmentally safe and skin friendly.

To obtain robust and durable products for the customers, a thorough understanding of the nature of the textile surface and the functionality of the microcapsule surface is needed to find ways to graft the microcapsule onto the various textile surfaces.

Examples will be presented of the use of such patented technology where value is added to the final products such as advanced thermoregulation properties, improved performance, reliable protection or with health and wellness benefits.

Areas that will be exemplified are

- Aromatherapy: a range of fragrances can be integrated in the fabric and released gradually over time. Upon release, the fragrances appeal to the senses, promoting sleep and relaxation.
- Skincare: a range of ingredients that offer extra protection against free radicals, ageing, pollution, UV. The textile treatments can help to increase the level of protection against those free radicals inside our bodies.
- Allergen control: a product range for environmental friendly microencapsulated insect repellents.

