

# Development of an Antibacterial Cloth Based on Microfiber

## CleanCloth - a FP7 Project

In the CleanCloth project, the aim is to develop a superior cleaning cloth with constant and continuous antibacterial effect, ensuring that no bacteria are left in the cloth and making bacterial re-growth impossible, eliminating the need for using special and time consuming hygiene procedures.

Infectious diseases arising in the home setting are a significant concern. Although a proportion of these infections are caused by direct person-to-person interaction or consumption of contaminated food, evidence shows that a significant amount of infections, not only food-borne but also person-to-person, relate to cross contamination via hands, surfaces or other bacteria containing objects such as the kitchen-cloth. In Europe, there are about 24 million cases reported of illness due to microbial contamination reported annually. However, studies demonstrate that this number is actually much higher, probably ten times higher, due to the mild cases not being reported. The primary causes of diseases due to microbial contamination include Salmonella, Campylobacter, Parasites and Listeria.

The CleanCloth Project is looking at solving three main technological challenges:

- Enhancing the efficiency of the cloth compared to today's products while complying with European legislation
- Successfully integrating the additive into good quality microfiber
- Environmentally and dermatologically friendly product
- Keeping a competitive price

### Current Project Results:

- Additive selection completed
- Initial compounding trials performed
- Antibacterial testing performed
- Selection of additives for fiber
- Production of masterbatches
- Laboratory scale fiber spinning performed
- Knitting
- Splitting of fiber performed
- Antibacterial testing of fiber

### Pending Results:

- Spinning of fiber with modified additives
- Large scale cloth production
- Test of cleaning efficiency
- Industrial validation

### Coordinator:

- Norwex Holding AS (SME & Coordinator)

### Industrial Participants:

- Norwex AS (SME)
- PP Polymer AB (SME)
- Polisilk S.A (SME)
- Engtex AB (SME)
- Rezidor Hotel Brussels S.A (SME)
- Nilfisk Advance A/S (OTH)

### R&D Institutions:

- Teknologisk Institutt as (RTD)
- Centexbel (RTD)
- Swerea IVF (RTD)
- ITCF (RTD)

**Budget:** 1,432 Million Euro

### Financial support:

EU FP7 Research for the Benefit of SMEs 1,105 Million Euro

**Duration:** 24 months

**Start Date:** December 1st 2009

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