

## **Success Story**

# IKA<sup>®</sup> Laboratory Reactor Developing sustainable textiles.

#### THE CUSTOMER

A fast growing Swiss company that develops sustainable processes for textile surfaces.

Beyond Surface Technologies AG is committed to providing advanced, high-quality surface effects for textile products. Looking beyond the traditional chemical supply chains, we develop new technologies combining top performance with sustainability in order to meet the requirements of the textile industry and the consumer.

Our products are based on renewable sustainable raw materials and/or bio waste stream. In contrast to the "established" suppliers, who mainly use petrol based substances. Our raw materials are often used in the cosmetic industry or are by - products of the food processing / packaging industry.

Our customers are globally recognized brands who want to contribute positively to the environment.



## **Success Story**



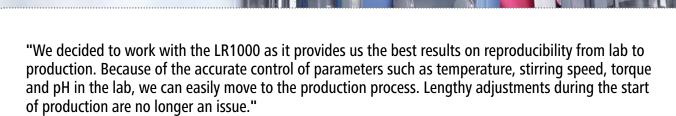
Torque trend measurement shows viscosity changes in the product



Integrated weighing function with a weighing range up to 2 kg



Option of connecting a pH electrode



- Urs Hasler, Beyond Surface Technologies

## THE CHALLENGE

Achieving better scale up reproducibility

- > New base of raw materials from industries that are usually not used in textile chemicals - new processes for production of emulsions and dispersions.
- > Controlling parameters like temperature, pH and mechanical action/shearing during mixing and homogenization key to produce good emulsions.
- > Exact parameters from the lab help to go into successful scale-up

## THE SOLUTION

Improved efficiency in the laboratory and easier transfer to bulk production

- > IKA® reactors allow better and consistent control of parameters in the lab
- > Better lab to lab reproducibility and easier transfer to bulk production
- > It is important to start at low volumes as we have to add high volumes of water towards the end of the process
- > Very flexible: We start with a highly viscous mix and get a water based emulsion
- > Option to use different stirrers (especially the one with Peek scrapers)
- > Convenient feature is to weigh directly in the machine integrated balance greatly improves product









