

Success Story

IKA[®] 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.



reddot design award
winner 2013



German
Design Award
SPECIAL
MENTION 2015



designed
for scientists



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



"We decided to work with the LR1000 as it provides us the best results on reproducibility from lab to production. Because of the accurate control of parameters such as temperature, stirring speed, torque and pH in the lab, we can easily move to the production process. Lengthy adjustments during the start of production are no longer an issue."

- 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

