



Consumer care

Consumer care products are complex industrial fluids that are highly time-dependent.

Successful cosmetics and personal care products need the right rheological properties. Since many products are non-Newtonian liquids, the industry is dependent on complex flow measurements. The measurements are required to determine how a product feels when used (e.g. skin sensation), how it behaves (e.g. pumping performance) and how it changes over time (e.g. stability). The measurements are also needed to choose/change/modify ingredients, to decide manufacturing conditions and to troubleshoot product failures. Most manufacturers have several parallel continuous production lines and there is an unmet need to accurately measure these complex flows in-line and in real-time. Currently, measurements are performed using slow off-line rheometers or inaccurate in-line flow meters/viscometers.

“in-line at the site location”

Benefits

In-line measurements on site location

Ensure traceability

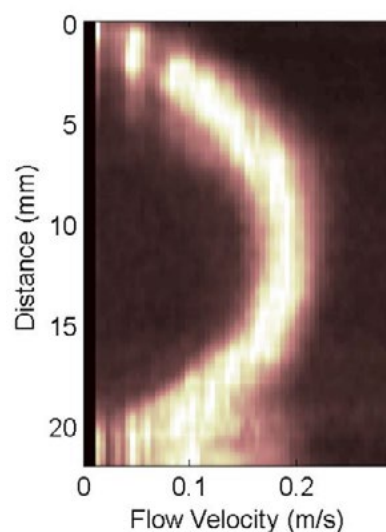
Eliminate inaccurate sampling due to time effects

Link important fluid quality parameters to your manufacturing process



Rheology

Complex properties of personal care liquids were evaluated in-line using the Incipientus system. The flow was visualized and a wide range of Newtonian and non-Newtonian flow behaviors was observed.



2D Image of flow

A 2D scan of the flow inside the pipe shows the shape of the velocity profile.