Connecting Chemistry

SERVICE OVERVIEW

Applications Laboratory Cosmetics
DACH Region

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AN OVERVIEW OF OUR SERVICES

FORMULATION DEVELOPMENT
Support for innovative new developments of rinse-off and leave-on products for skin and hair applications

FORMULATION ADJUSTMENT
Optimization of formulations with relation to:
- sensorial effect
- pricing
- stability improvement
- optimization of the flow behavior
- specific ingredient claims

SENSORY ASSESSMENT OF FORMULATIONS
Sensory profile assessment based on an expert panel

VISCOSITY MEASUREMENTS
We can measure viscosities over a wide viscosity range (15 mPa.s to 2,000,000 mPa.s) for you with the aid of our Brookfield rotational viscometer.

MEASUREMENT OF RHEOLOGICAL PROPERTIES BY MEANS OF A CONE PLATE RHEOMETER
For application-related viscosity measurements at different shear rates, we have a cone-plate rheometer from Anton Paar with different measuring systems (plate-plate, cone-plate) by means of which we can determine:
- viscosity (at different temperatures)
- flow curves (at different temperatures)
- yield points
- thixotropy
- flow properties in defined shear rates

VISCEROELASTICITY VIA OSCILLATION
RHEOLOGICAL MEASUREMENTS
Oscillatory measurements are helpful in determining the stability of formulations. We can measure the following parameters for you:
- amplitude sweep
- frequency sweep
- single frequency test

DETERMINATION OF PHYSICOCHEMICAL PARAMETERS
We can determine the following parameters:
- dynamic viscosity (Brookfield viscometer RV-DV2T)
- water content (500 ppm - 100%), Karl Fischer titrator by Mettler Toledo
- density
- pH-value
- refractive index
- conductivity

MICROSCOPY
Our Leica DM3000 transmitted light microscope can capture the enlargements: 100x / 200x / 400x / 1000x. We offer:
- easy application of imaging transmitted light microscopy of emulsions
- easy application of imaging transmitted light microscopy of emulsions with particle size distribution and result documentation
- complex application of imaging transmitted light microscopy of emulsions (partly by means of polarized light) with particle size distribution, interpretation and result documentation

STABILITY TESTS
All formulations are tested for stability as follows:
- storage stability (-18°C, +4°C, +23°C, +40°C and +50°C) for 3, 6 and 12 months
- freeze/thaw cycle test (formulations are "stressed" at constantly changing temperatures at -18°C, +23°C and +50°C)
- rapid test (centrifugation of 50 ml cuvettes up to 6,000 rpm)

Your contact:
Lena Hansen
Applications Laboratory Cosmetics DACH
Brenntag GmbH
Messeallee 11
45131 Essen
Ph + 49 201 6496-1339
E-Mail: Lena.Hansen@brenntag.de

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