MICROTRAC
PARTICLE CHARACTERIZATION

A SINGLE TECHNOLOGY FOR ALL COATINGS CHARACTERIZATION

TURBISCAN APPLICATIONS

COATINGS: PAINTS, INKS & VARNISHES

DISPERSIBILITY | SHELF LIFE | RESUSPENSION

FAST SHELF-LIFE TESTING

Get a quick, precise, and quantified stability ranking with the Turbiscan Stability Index.

DETAILED SEDIMENTATION

Have a full understanding of particles settling and extend your formulation shelf-life by applying the best strategy.

RESUSPENDING EFFICIENCY

Compare the stability of fresh and resuspended samples. Find the best setup for optimum resuspending.

DATA YOU CAN TRUST

Analyse any kind of coatings without any dilution or mechanical stress, with SMLS optical technology.

part of VERDER scientific

COATING CHARACTERIZATION AT A GLANCE

Coatings offer unique properties to materials, such as aesthetics, mechanics, conductivity, protection, and surface functionality. The industry is experiencing an increase in market demands for eco-friendly formulations, low carbon emissions, and the use of innovative materials like nanoparticles and conductive coatings. To meet these demands, scientists continuously strive to develop high-performance formulations with suitable properties for specific applications. Evaluating dispersibility, stability, and shelf-life is crucial to ensure the production of top-quality products.

HOW CAN WE HELP YOU?

To reach the optimum formulation regarding performance, stability, cost and process, scientists need to get the full understanding of the product behavior within its entire life cycle.

FORMULATION | SCALE-UP & PROCESS | STORAGE & SHIPPING | END-USE

PARTICLE DISPERSION & SOLVENT SELECTION

Quantify the ability of particles to disperse in a given system or select the solvent mixture with the best suits for your particles. Rapidly evaluate the effect of additives on formulation quality.

SHORTER TIME-TO-MARKET

Detect destabilization up to 200 times faster than naked eye and shorten the stability measurement down to days or hours.

FORMULATE GREENER FORMULATIONS

Ensure stability and performance are not compromised when substituting hazardous chemicals with more environmentally-friendly alternatives.

SEDIMENTATION AND PACKING

Fully understand the sedimentation process and avoid particle packing with adapted re-dispersion method.

SHIPPING & STORAGE

Study the stability of your formulation directly under the shipping & storage condition to provide highest product shelf life.

REDISPERSION METHODS

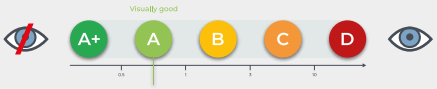
Evaluate the easiness and the speed required to refresh the coating before application to ensure the best product final performances.

TURBISCAN TECHNOLOGY

TURBISCAN, based on the Static Multiple Light Scattering (SMLS) technology is the most suitable method to characterize any kind of coatings directly in their native state in perfect agreement with ISO TS 21357.

TURBISCAN STABILITY INDEX (TSI)

The TSI is a Turbiscan-specific parameter designed for formulators to compare and characterize the physical stability of various formulations with a single click and a single, comparable, and reproducible number. The higher the value, the more unstable the sample.



BENEFITS AT A GLANCE

- Sensitive to the slightest variations
- Non-dilution, native samples
- High Space resolution: 20 µm scanning
- From: 10 nm to 1 mm
- From 10^{-4} up to 95% v/v
- Measurement temperature from 4 °C up to 80 °C
- One-click stability ranking with the Turbiscan Stability Index (TSI)

A SINGLE TECHNOLOGY FOR ALL COATINGS CHARACTERIZATION

Analyze any type of dispersion: concentrated, diluted, with nano or large particles, opaque, transparent... from varnishes to paints and inks.

www.microtrac.com/applications

MICROTRAC
PARTICLE CHARACTERIZATION

Microtrac Formulaction SAS

3-5 rue Paule Raymondis
31200 Toulouse · France

Phone: +33 (0)5 62 89 29 29
contact.fr@mtf.verder.com

www.microtrac.com

part of VERDER scientific