TURBISCAN TOWER

UP TO 6 SAMPLES
Simultaneous comparison of destabilization kinetics in colloidal formulations.

SHELF LIFE CONDITIONS
Real stability determination without mechanical stress or dilution (concentration up to 95% v/v).

ACCELERATED AGING
Temperature control from 4 to 80°C to accelerate destabilization or apply real storage conditions.

PARTICLE SIZE
Determination of mean particle size and detection of size variation.

MULTISAMPLE STABILITY & SIZE
ANALYSIS OF LIQUID DISPERSION

STABILITY & SIZE

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*Smart scientific analysis*

MULTISAMPLE STABILITY ANALYZER

TURBISCAN® is used world-wide to detect at an early stage all kinds of destabilization such as coalescence, flocculation, creaming, sedimentation…Various products (emulsions, suspensions, foams…) can be studied at full concentration range (up to 95%v/v) without dilution or sample preparation.

MEASURELMENT **PRINCIPLE**

Moving measurement head

Light Source

T

BS

Low BS signal

High BS signal
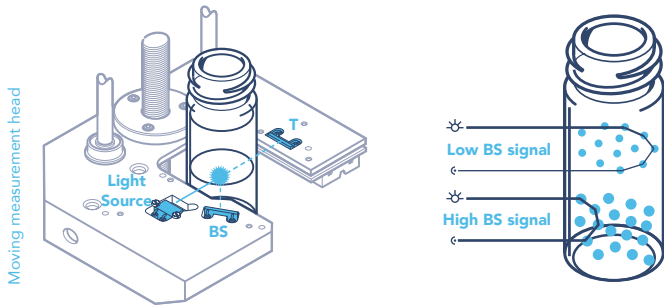
TURBISCAN® uses Static Multiple Light Scattering to detect particle migration and size variation in liquid dispersions. A measurement head moves over the cell height and works with 2 detectors - Transmission (T) and Backscattering (BS) – this offers highly sensitive and reliable analysis of transparent to opaque samples even at high concentrations. T & BS signals are related to particle size and concentration and their variation is a sign of destabilization that is occurring. Turbiscan TOWER acquires T & BS intensity every 20µm and at time periods adapted to destabilization phenomenon kinetics (short or long-term stability).

Backscattering (Δ%)

Time
00:00
00:10
00:20

0   20   40
Bottom   Sample Height (mm)   Top
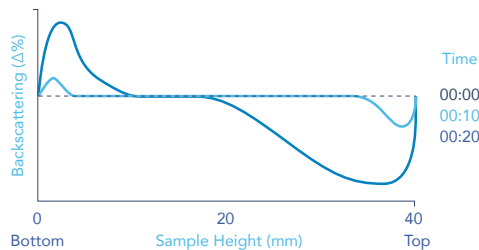
KEY **BENEFITS**

FAST AND SENSITIVE STABILITY DETERMINATION
- 200 times faster than visual control
- Real storage conditions (no centrifugation or dilution)
- Accelerated stability analysis with 6 sample positions at unique temperature to rapidly compare formulations.

A COMPLETE INSIGHT TO FORMULATION PROPERTIES
Long term stability analysis, mean diameter and size variation, phase thickness, dispersibility ratio, volume fraction, migration velocity…

SIMPLE AND INTUITIVE INTERFACE
- Turbiscan Stability Index- evaluate and compare formulation stability with one number. Make decisions faster.
- Automatic reporting and multi user accounts
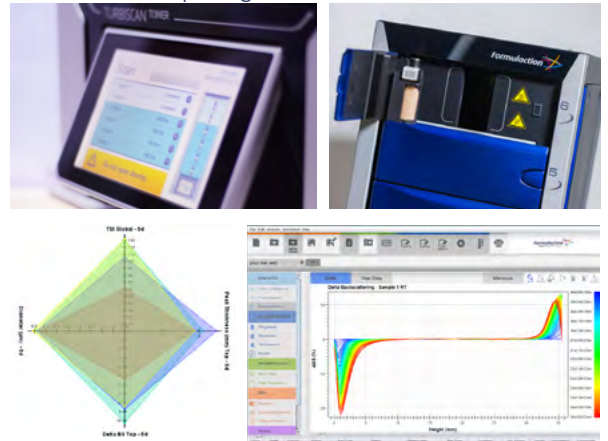
APPLI**CATIONS**

Cosmetics

Food

Paint & Ink

Oil & Petroleum

Electronics

Pharmaceutical

TECHNICAL **SPECIFICATIONS**

Technology	S-MLS 880 nm
Sample Cell Volume	4 or 20mL
Temperature range	4 - 80°C
Number of Samples	6
Sample concentration	0.0001 - 95% v/v
Measured size range	10 nm - 1mm
Reproducibility / Repeatability	0.05% / 0.05%
Acquisition scan step	20µm
Automatic sample recognition (bar-code)	Yes
ISO Certification	TR 13097 Compliant
Dimensions	38 x 45 x 90 cm
Weight	45 kg

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