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TURBISCAN® TOWER

MULTI-SAMPLE MACROSCOPIC & COLLOIDAL STABILITY ANALYSIS

Multi-sample Accelerated Stability Analyzer

FAST STABILITY MEASUREMENT ON UP TO 6 SAMPLES

Accelerate stability measurement up to 1,000 faster than visual observation from 4°C to 80°C.

STABILITY QUANTIFIED AT A GLANCE

Turbiscan® Stability Index to rapidly quantify destabilization kinetics. Fast ranking for simplified decision making.

SHELF LIFE UNDER REALISTIC CONDITIONS

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

PARTICLE SIZE

Determination of mean particle size and its variation by Static Multiple Light Scattering (SMLS).

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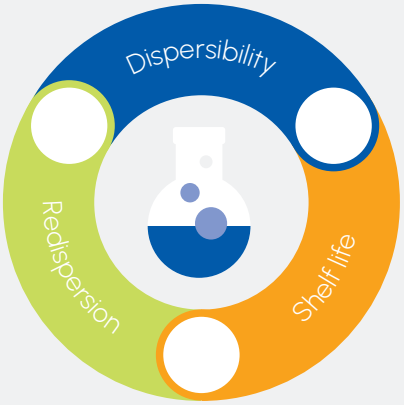
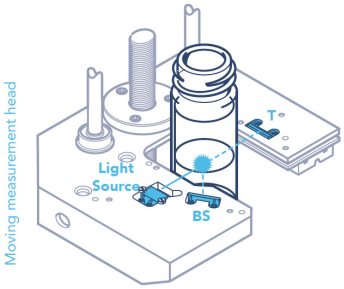
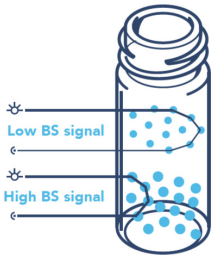
MULTI-SAMPLE ACCELERATED STABILITY ANALYZER

Turbiscan has been used worldwide for over 25 years to detect at an early stage all kinds of destabilizations such as coalescence, flocculation, creaming, sedimentation . . . emulsions, suspensions, or foams can be studied at full concentration range (up to 95% v/v) without dilution or sample preparation. Combining the SMLS technology with the knowledge in formulation science, Turbiscan has become the solution of choice for a complete dispersion characterization (dispersibility, particle size, physical stability, and redispering).

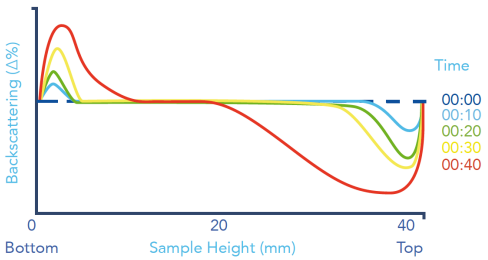


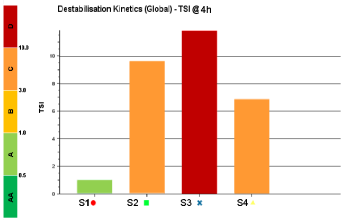
MEASUREMENT PRINCIPLE





Turbiscan uses Static Multiple Light Scattering (SMLS) 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 occuring. The Turbiscan TOWER acquires both destabilization kinetics and mean particle size data at any given time.





KEY BENEFITS

FAST AND SENSITIVE STABILITY DETERMINATION

- 1,000 times faster than visual control
- Real storage conditions (no centrifugation or dilution)
- Accelerated stability analysis with 6 sample positions at a controlled temperature to rapidly compare formulations.

A COMPLETE INSIGHT TO FORMULATION PROPERTIES

Dispersion stability analysis (migration velocity, phase thickness, diameter kinetics), particle size (mean diameter, hydrodynamic diameter), dispersibility (dispersibility ratio) and redispersion testing (mean signal value comparison).

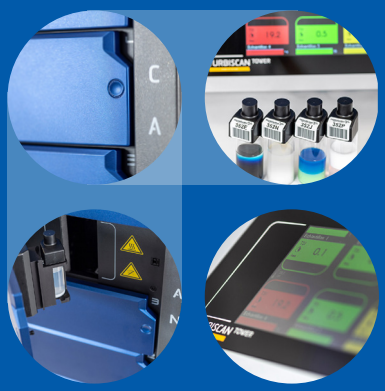
QUANTIFIED STABILITY - TURBISCAN STABILITY INDEX

- Global formulation stability quantified with one number to make decisions faster. Instant reading on the LCD screen.
- Adapted TSI Scale for smart guidance to quality evaluation.

APPLICATIONS

TECHNICAL SPECIFICATIONS

Technology	Static Multiple Light Scattering (SMLS)
Displacement interval max. resolution	5 µm
Maximum displacement velocity	15 mm/s
Sample volume	1.5 - 30 mL
Temperature range	4 - 80°C
Number of Samples	1 - 6
Sample concentration	0.0001 - 95% v/v
Measured size range	10 nm - 1 mm
Reproducibility / Repeatability on latex standards	+/- 0.05% / 0.05%
Automatic sample recognition (bar-code)	Yes
ISO Compliant	TR 13097, TR 18811, TS 22107, TS 21357
Dimensions	38 x 45 x 90 cm



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