TURBISCAN CLASSIC 2

FAST & TRUE STABILITY
thanks to analysis under real conditions (no stress & no dilution), up to 200 times faster than visual observation

QUICK DETECTION OF ALL INSTABILITIES
Aggregation, agglomeration, coalescence, floculation, sedimentation, creaming

THE REFERENCE
Turbiscan technology is the worldwide reference for colloïdal stability analysis

STATE OF THE ART SOFTWARE
new Turbisoft Classic for easy and automated comparison of your samples stability

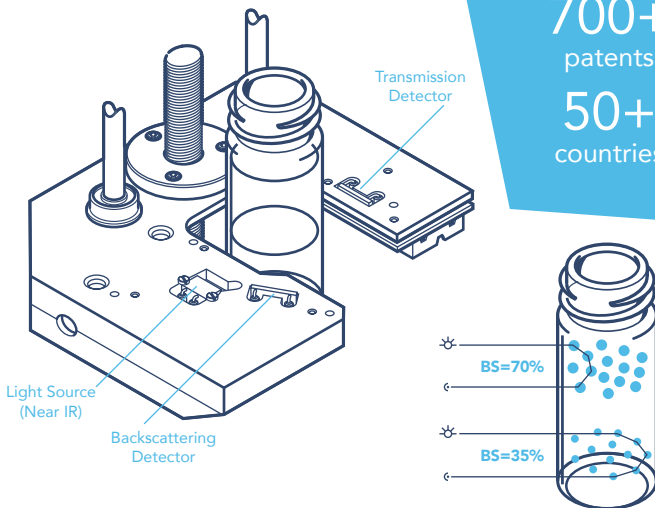# QUICK STABILITY ANALYSIS OF EMULSIONS & CONCENTRATED DISPERSIONS

Formulaction
Smart scientific analysis

TURBISCAN, **THE REFERENCE**

Turbiscan® is used world-wide to detect at a very early stage all kinds of destabilization such as coalescence, flocculation, creaming, sedimentation, etc... Various products such as emulsions, suspensions or foams can be studied from low to high concentrations without any sample preparation or dilution.

MEASUREMENT **PRINCIPLE**

2000+
publications

700+
patents

50+
countries

Transmission Detector

Light Source (Near IR)

Backscattering Detector

BS=70%

BS=35%

Turbiscan® works on Multiple Light Scattering in both Transmission (T) and Backscattering (BS), in order to analyze low and high concentration dispersions. T & BS signals depend on particle size and concentration: **BS & T = f (d /φ)**

The Turbiscan® CLASSIC 2 acquires T & BS every 20 microns along the sample height. Scans are repeated during ageing time to detect any variation of the signal due to a destabilization, such as particle migration and/or particle size variation.

KEY **BENEFITS**

TRUE STABILITY ANALYSIS
- Real storage conditions
- Sedimentation/Creaming rate without external stress (no centrifugation)
- Size variation without any dilution

FAST STABILITY ANALYSIS
- Up to 200 times faster than naked eye
- Perfect for Quality Control and quick fingerprint of samples

EASY STABILITY ANALYSIS
- State of the art software with 1-click data treatment and report generation
- Plug & Play instrument
- Comparison of different measurements in the same file

APPLI**CATIONS**

Cosmetics

Food

Paint & Ink

Oil & Petroleum

Electronics

Pharmaceutical

TECHNICAL **SPECIFICATIONS**

Cell Volume	7 ml
Quantitative monitoring of dispersion stability	•
Migration velocity & hydrodynamic diameter	•
ISO TR 13097 compliant	•
Size range	10 nm to 1 mm
Concentration range	0.0001 to 60% v/v
Repeatability auto	± 0.1 %
Repeatability manual	± 0.25 %
Temperature control	No
Dimensions (cm)	34x16x29
Weight (kg)	5

Formulaction
Smart scientific analysis

3-5 Rue Paule Raymondis - 31200 Toulouse - France
T. +33(0)5 62 89 29 29 / F. +33(0)5 62 89 29 20

www.formulaction.com

ASTM
D7061

ASTM
INTERNATIONAL
Standards Worldwide

HEAVY FUEL STABILITY
ASTM D7061 compliant to determine the stability reserve of crude and heavy fuel oil in one click

MULTI APPLICATIONS
Stability, asphaltene dispersant efficiency, water in oil demulsification, compatibility of blends

PORTABLE AND ROBUST
Designed for R&D labs and on-field analysis (<5kg)

THE REFERENCE
Turbiscan technology is the worldwide reference for the colloïdal stability analysis

STABILITY ANALYZER FOR CRUDE & FUEL OILS

STABILITY & SIZE

Formulaction
Smart scientific analysis

TURBISCAN OIL SERIES

TURBISCAN®, THE REFERENCE

Turbiscan® is used world-wide to detect at an early stage all kinds of destabilization such as coalescence, flocculation, creaming, sedimentation, etc... Turbiscan® Oil Series allows the stability analysis of heavy fuel oil thanks to an innovative method granted ASTM D7061.
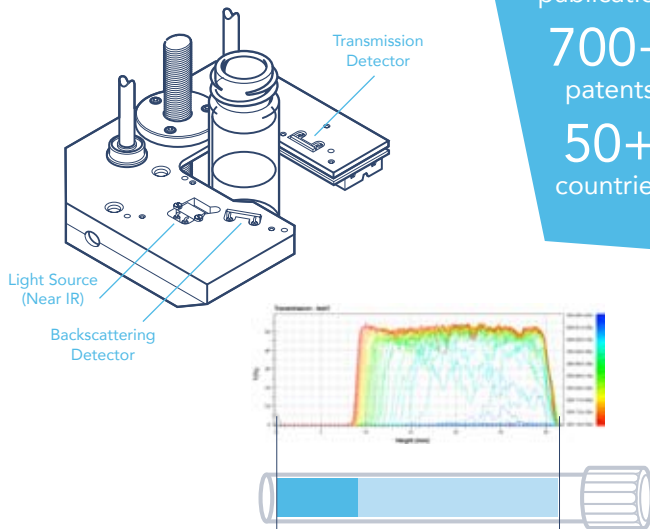
ASTM INTERNATIONAL
Standards Worldwide

MEASUREMENT PRINCIPLE

Transmission Detector

Light Source (Near IR)

Backscattering Detector

2000+ publications

700+ patents

50+ countries

Turbiscan® works on Static Multiple Light Scattering in both Transmission (T) and Backscattering (BS), in order to analyze low and high concentration dispersions. T & BS signals depend on particle size and concentration: **BS & T = f (d /φ)**

The Turbiscan® OIL SERIES acquires T & BS every 20 microns along the sample height. Scans are repeated during ageing time to detect any variation of the signal due to a destabilization, such as particle migration and/or particle size variation.

D7061 ASTM METHOD
STABILITY OF HEAVY FUEL OILS

Quick and easy method to determine the stability reserve upon ageing simulation (precipitation of asphalten in alkane)

HFO + TOLUENE   HEPTANE   EASY SAMPLING   NO CALIBRATION NO PARAMETERS   RESULTS IN 15 MIN

☐ STABLE
☐ UNSTABLE

KEY BENEFITS

ACCURATE STABILITY ANALYSIS
- Measurement of stability reserve thanks to ageing simulation (precipitation of asphaltenes in alkane)
- High repeatability, accuracy and objectivity

FAST STABILITY ANALYSIS
- Up to 200 times faster than naked eye
- Only 15 minutes to determine stability of heavy fuels and crude oils
- One product, One stability, One number

EASY STABILITY ANALYSIS
- State of the art software with 1-click data treatment and report generation
- No calibration, no parameters, simply dilute in toluene and precipitate with heptane
- Robust and portable device to carry on the field if necessary

© bienvustudio. COMMUNICATION VISUELLE. 05 62 89 29 59

APPLICATIONS

Oil & Petroleum   Heavy fuel

Crude Oils   Effects of additives

Effects of blending

TECHNICAL SPECIFICATIONS

Cell Volume	7 ml
ASTM D-7061 compliant	•
ISO TR 13097 compliant	•
Quantitative monitoring of dispersion stability	•
Migration velocity & hydrodynamic diameter	•
Size range	10 nm to 1 mm
Concentration range	0.0001 to 60% v/v
Repeatability auto	± 0.1 %
Repeatability manual	± 0.25 %
Temperature control	No
Dimensions (cm)	34x16x29
Weight (kg)	5

Formulaction
Smart scientific analysis

3-5 Rue Paule Raymondis - 31200 Toulouse - France
T. +33(0)5 62 89 29 29 / F. +33(0)5 62 89 29 20

www.formulaction.com