

## RHEOLASER COATING



### REALISTIC TESTING CONDITIONS

The only instrument to precisely characterize coating properties without stress



### FILM FORMATION

Characteristic times determination  
- drying times  
- open times  
- curing times...



### DRYING MECHANISM

Characteristic drying signature identification:  
particle packing, particle deformation, curing...



### ADAPTABLE MEASURING HEADS

Up to 4 measuring heads possibilities to simultaneously compare coating properties.

## OPTICAL COATING CHARACTERIZATION

MICRORHEOLOGY

[www.formulation.com](http://www.formulation.com)

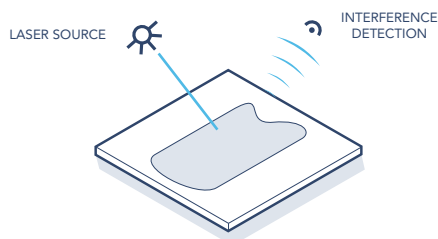
**Formulation**   
Smart scientific analysis

## OPTICAL FILM FORMATION ANALYZER

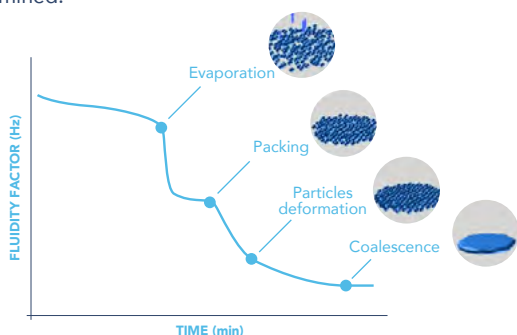
**Rheolaser®COATING** enables monitoring of microstructure changes during the film formation process. Based on diffusing wave spectroscopy (DWS), it identifies the drying mechanisms and characteristic drying times on any kind of substrate. It works on any film-forming product or coating, such as inks, paints, varnishes, resins, binders, cosmetic films...



### MEASUREMENT PRINCIPLE



**Rheolaser®COATING** is based on Multi Speckle Diffusing Wave Spectroscopy (MS-DWS) and detects particle Brownian motion. A thorough analysis of wave interferences, due to particle mobility, provides information about the properties of the structure. During film formation, different mechanisms can be detected: evaporation, packing, deformation...and characteristic parameters of coatings can be determined.



### KEY BENEFITS

#### NON-CONTACT FILM FORMATION ANALYSIS

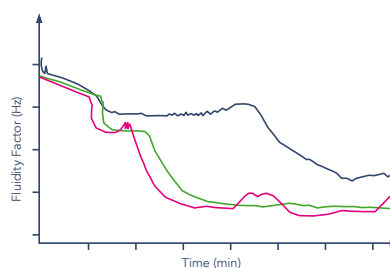
- Long term analysis without stress
- Film formation monitoring and drying mechanisms identification.

#### SIMPLE EXPERIMENTAL SET-UP

- Easy sample manipulations, compatible with automatic coater for better thickness control and applications (from 5µm to 3mm).
- Up to 4 measuring heads for direct coating comparison

#### ADAPTED SUBSTRATES

Multiple possibilities of substrates to better reproduce actual application conditions: Glass, Ceramic, Wood, Metal...



Style	Name	All	Hide	Time 1	Time 2	Time 3
Sample 1		<input checked="" type="checkbox"/>	<input type="checkbox"/>	6min31s	10min01s	15min31s
Sample 2		<input checked="" type="checkbox"/>	<input type="checkbox"/>	5min23s	9min36s	12min13s
Sample 3		<input checked="" type="checkbox"/>	<input type="checkbox"/>	6min22s	12min34s	13min14s



### APPLICATIONS



Paint &amp; Ink



Electronics



Cosmetics



Polymers

### TECHNICAL SPECIFICATIONS

Technology	MS-DWS 650 or 850 nm
Applied thickness	5 µm - 3mm
Simultaneous measurements	1 to 4
Temperature range	RT
Measurement time	Seconds to Days
Automatic application	Compatible with automatic coater
Dimensions	70 x 60 x 62 cm
Weight	45kg