CurinScan® EXPERT

OPTIMIZE FORMULATION & CURING PROCESS

ENHANCE YOUR MATERIAL FORMULATION AND CURING

ENHANCE COATINGS FORMULATION & CURING

- Formulation Ingredients
- Temperature
- Humidity
- Substrate
- Film Thickness

PRECISE UNDERSTANDING OF FORMULATION

- Drying time
- Drying steps
- Characteristic times
- Open time
- Dry-surface
- Dry-through

PROTOCOL OPTIMIZATION

- Multilayer analysis
- Temperature control
- Humidity control
- Realistic substrate
- No thickness limitation
- Large range of time scale

UNIQUE & STRAIGHTFORWARD

- In-situ & contactless
- Sensitive to nm mobility
- Surface & bulk measurement
- Realistic experiment conditions
- Easy sampling

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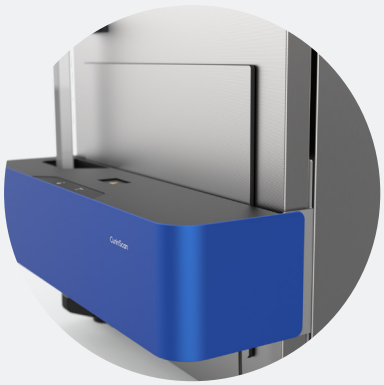
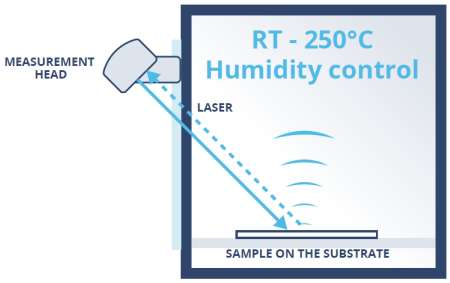
FORMULACTION
Scientific instruments

OPTIMIZE FORMULATION & CURING PROCESS

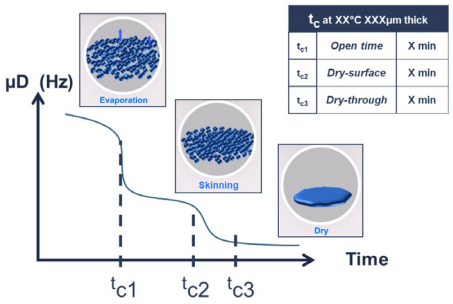
CurinScan allows the monitoring of nanoscale mobility during the curing and drying process. Thanks to the Nanosacle Mobility Analysis (NMA), it identifies the drying & curing mechanisms (evaporation, packing, hardening...) and the characteristic times (Open time, dry-surface, drythrough...). The measurement is in-situ, contactless and works on any type of substrate (glass, metalic, paper, wood...) from RT up to 250 °C.



MEASUREMENT PRINCIPLE



CurinScan is based on Nanoscale Mobility Analysis (NMA) and measures the structure (particles, polymers, pigments...) Brownian motion. During the film formation or curing process, structure nanoscale mobility changes due to the change in the material properties, for example from liquid to solide. The insitu analysis of the nanoscale mobility provides a full reading of the thermodynamic mechanisms and characteristic times.



KEY BENEFITS

- Objectivity and accuracy to monitor the curing/drying
- Determine the characteristic times of the film formation
- Analysis from RT up to 250°C with humidity control
- Evaluate the impact of formulation, temperature, substrate & thickness
- Optimize the formulation and the manufacturing protocol

FEATURES

- **In-situ & contactless**
- **Sensitive to nm mobility**
- **Surface & bulk measurement :** allows for determining the surface dry and the dry-through. Also to analyse multilayer samples
- **Realistic experiment conditions :** temperature range from RT - 250°C, humidity up to 80%, and with no sample thickness limitations.
- **Easy sampling :** Place the substrate with the sample inside the instrument and start the measurement.

APPLICATIONS

- Pains & Inks
- Coatings
- Home & Personal Care
- Batteries & Electronics
- Cosmetics
- Polymers

TECHNICAL SPECIFICATIONS

Technology	Non-Invasive MS-DWS
Wavelength	650 nm
Applied Thickness	μm - mm
Temperature Range	RT - 250°C
Humidity Range	Up to 80%
Measurement Time	Minutes to Days
Substrates	Glass, Metal, Ceramic, Polymer...
Sample Nature	Liquid, Solid
Dimensions	585 x 704 x 434 mm
Weight	55 kg

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