

# **UV Curing Tester** UV CURE CHECK

Smart Smear Test for Determining UV Curing Degree







**Reduce Set-Up Time** Analysis directly at the press



Energy Savings Optimise UV lamp settings



**Precise Measured Value Output** Degree of hardening as a percentage of the reference value



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### **Working Principle**

An indirect, relative measurement method is used to test the curing degree of UV inks or coatings. The coefficient of sliding friction is determined by dragging a friction element over the printed surface. This coefficient is proportional to the curing degree of the ink or coating layer.

A sheet is completely cured with the maximum UV dosage (max. dryer output and min. speed). The coefficient of sliding friction of this surface is measured as a reference and the sheets that are subsequently produced are compared with it.

The displayed curing degree is calculated from the ratio of the coefficients of sliding friction of the fully cured reference sample and the tested sample.



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PITSID develops, produces and sells measuring systems, supported by the Sächsisches Institut für die Druckindustrie. The measuring systems are used for quality control and to increase efficiency during adjustment and maintenance operations.

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Innovative Measuring Systems Made in Germany

## Measuring Device for Testing the Curing Degree of UV Printing Inks and Varnishes

UV inks are cured by being exposed to UV light, whereby their molecules polymerize and a solid ink film forms on the substrate. Uncured UV inks and coatings have a sensitizing and allergenic effect and therefore require specific hazard identification. Only products with cured UV inks and coatings may be distributed. To ensure complete curing, the inks, equipment and processes used must be carefully adapted to each other.

Using an indirect measurement method, UV CURE CHECK determines the curing degree of the applied UV and hybrid inks or UV coatings very quickly. These measurements provide the basis for counteracting any harmful migration from the printed sheet and for checking whether inks may block or smear during postpress processing and delivery. It also allows for the optimization of the UV lamp intensity, reducing energy consumption and thus making a sustainable contribution to environmental protection.

## Technical Data

#### **Measurement uncertainty**

Reproducibility of individual measurements < ± 10 %

#### Measurement time

Approx. 5s

#### Display

2-line display, 15 x 52mm

#### Device dimensions

350 x 105 x 90mm

### Weight

1,100g with friction element

### Power supply

Battery operation: 6 x 1.5V, Mignon type (AA) Electrical operation: Using delivered plug-in power supply unit

#### Automatic shutdown

After 10 min. without use

#### Scope of delivery

Measurement device with friction element including batteries, plug-in power supply unit, carrying case, 10 replacement friction pads, operating manual