ipac

ACMS™ – The Process Tool

The Advanced Colour Measurement System (ACMS™) is a scanner suitable for industrial applications. It is used for spatially resolved colour measurement on decorative surfaces. Hyperspectral image processing ensures that the system is able to recreate, on a surface of 8x22 mm, the optical colour impression perceived by a well-trained and healthy human eye, and to subject it to a comprehensive objective assessment. This assessment is not affected by optical illusions or other influences. What is more, the ACMS™ complies with the CIE, ASTM and ISO provisions.

The ACMS™ consists of a control cabinet with roof-mounted cooling unit, a measuring device and a user interface.

The basic module allows the user to set different types of lighting (A, C, D50, D55, D65, D75, F11 (TL 84), F2 and F7), the observer (CIE 1964 and CIE 1931) and the scan length for the respective scan.

Specifications

Hyperspectral push – broom Scanner
Xenon light source
Complies with ASTM/CIE/ISO provisions

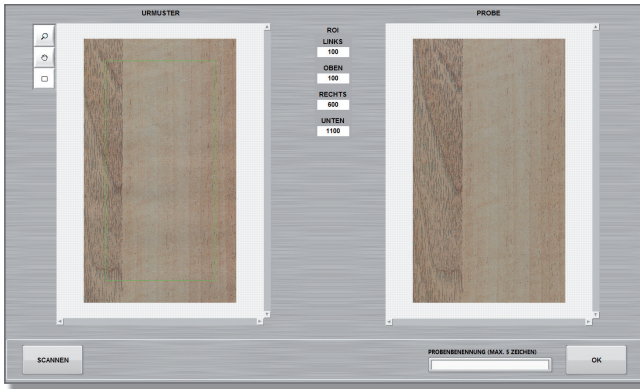|	
Geometry	45˚/0˚
Measuring area	80x220 mm
Spatial resolution	25 µm
Spectral range	380 – 780 nm
Spectral resolution	5 nm

Possible Applications of the ACMS™

"How similar is the current colour matching level to the master sample to be reproduced?"

"Does the present similarity meet the quality requirements defined?"

"Which deviations are to be corrected in order to achieve the objective defined?"
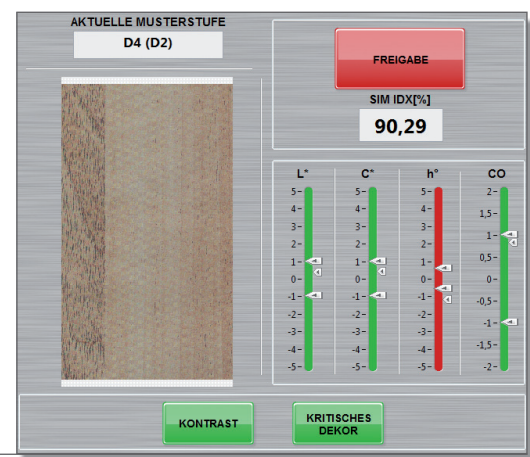
CMMC – Certification of Multicoloured Surfaces

The ACMS™ CMMC module serves to create an ACMS™ certificate for decorative samples. Based on the similarity index, the production release and/or the production itself are certified.

The similarity index is an index developed and patented by IPAC. It describes the similarity of two samples (in percent).

Colour/Contrast - Similarity Index

The similarity of the colour impression, the contrast and, as a result, the release status can be read at a glance.
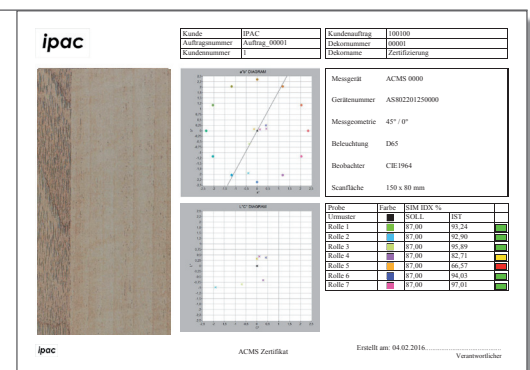

Detailed analyses include the indication of L*, a*, b*, C*, h° (brightness, colour values, saturation, hue) and the contrast values associated with the individual certification levels.

The Certificate

ACMS™ certificates are created by the CMMC module. This results in an objective assessment of the colour impression. The physical samples required for visual assessment, which are to be replaced without the use of ACMS™ certificates, are dispensed with.

The replacement and use of the certificate substitute the previous process. Not only does this result in improved quality and efficiency, but also in increasing trust in the cooperation along the entire value chain.

Advantages of Digital Quality Management with ACMS™

- The visual assessment is substituted by objective measurements
- Physical samples and the related logistics are dispensed with
- Continuous documentation of the production process and final certification
- The future communication on the topic of quality occurs on the basis of certificates
- The certificate is replaced digitally immediately after production
- The certificate ensures that the products are within a specified tolerance as regards all parameters required for a release
- The continuous documentation of the process is the basis for future optimisations
- No internal and external colour-related complaints
- Employees are relieved from the physical strain caused by the objective colour impression assessment

How do you like my new outfit?

The pattern would also look awesome on wood.

Is that new to you? Try our special exhibition package and see for yourself!!

1.) Contact us by sending an e-mail to dqm@ipac.at.
2.) You will be provided with information on the sample preparation.
3.) Prepare 3-5 sets of samples and submit them until 31st July 2017 at the latest.
4.) We will measure and evaluate your samples and provide you with a detailed analysis on the topic of colour impression.
5.) Individual workshop until 31st October 2017 at the latest.

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europastraße 8 / 9524 villach / tel.: +43 4242 22810 / myipac@ipac.at / www.ipac.at