
ICMS™zɛro - Digital Printing
SPECIFICATION
CHARACTERISATION
PRODUCTION MONITORING
COLOUR MATCHING
CERTIFICATION
BENEFIT
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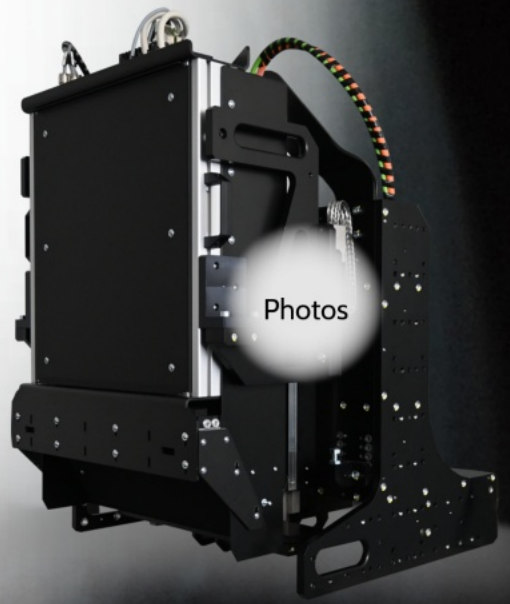
Specification & Dimensions ICMS™ zεro

Specification:

- Measurement geometry - 45 ° / 0 °
- Measuring speed - max. 350 m / min
- Spectral range - 380-730 nm
- Spectral resolution-SW - 10 nm
- Spatial resolution ~ 90 dpi (250 µm)
- Light source - LED
- Integrated automatic calibration unit
- With ICMS zεro, measurements can be carried out in accordance with ISO 24585-2:2023
- Traversing possible

Dimensions:

- Width - 630 mm
- Height - 1005 mm
- Depth - 732 mm



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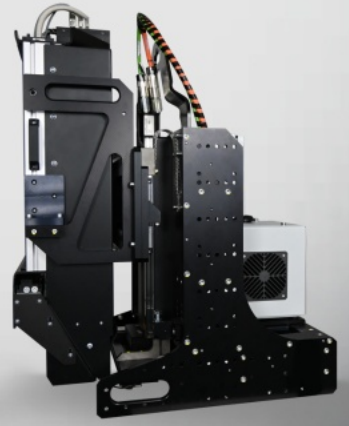
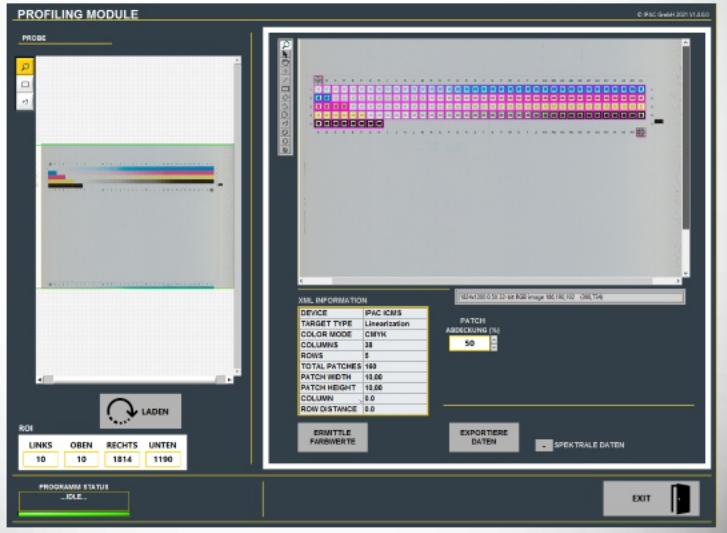
ICMS™ zεro

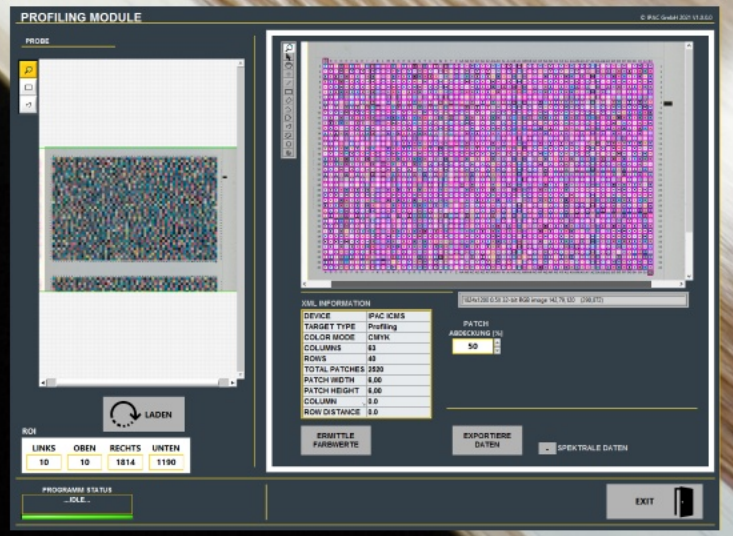


Characterisation with ICMS™ zɛro

Linearization



Profiling



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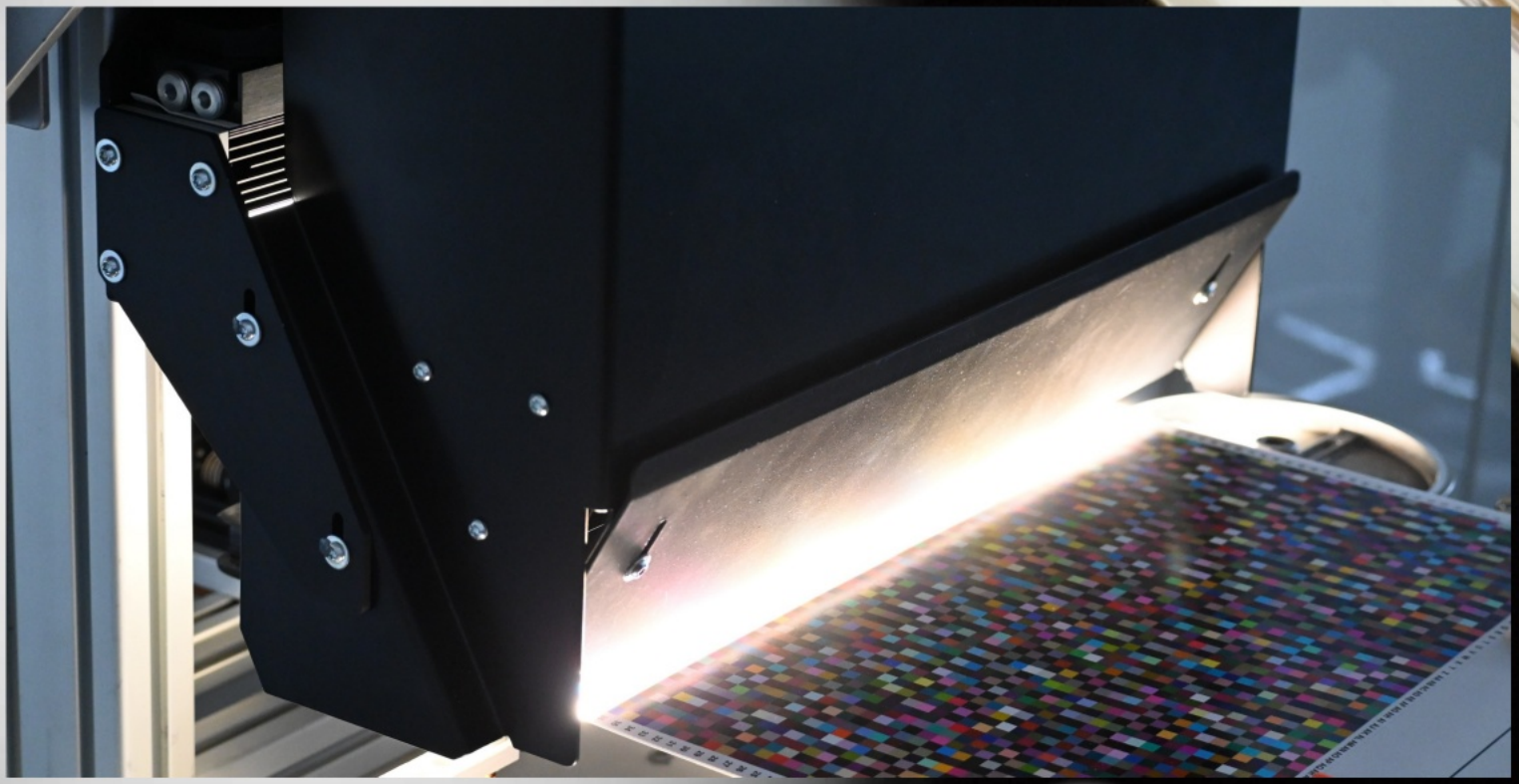
Scanning the profile chart



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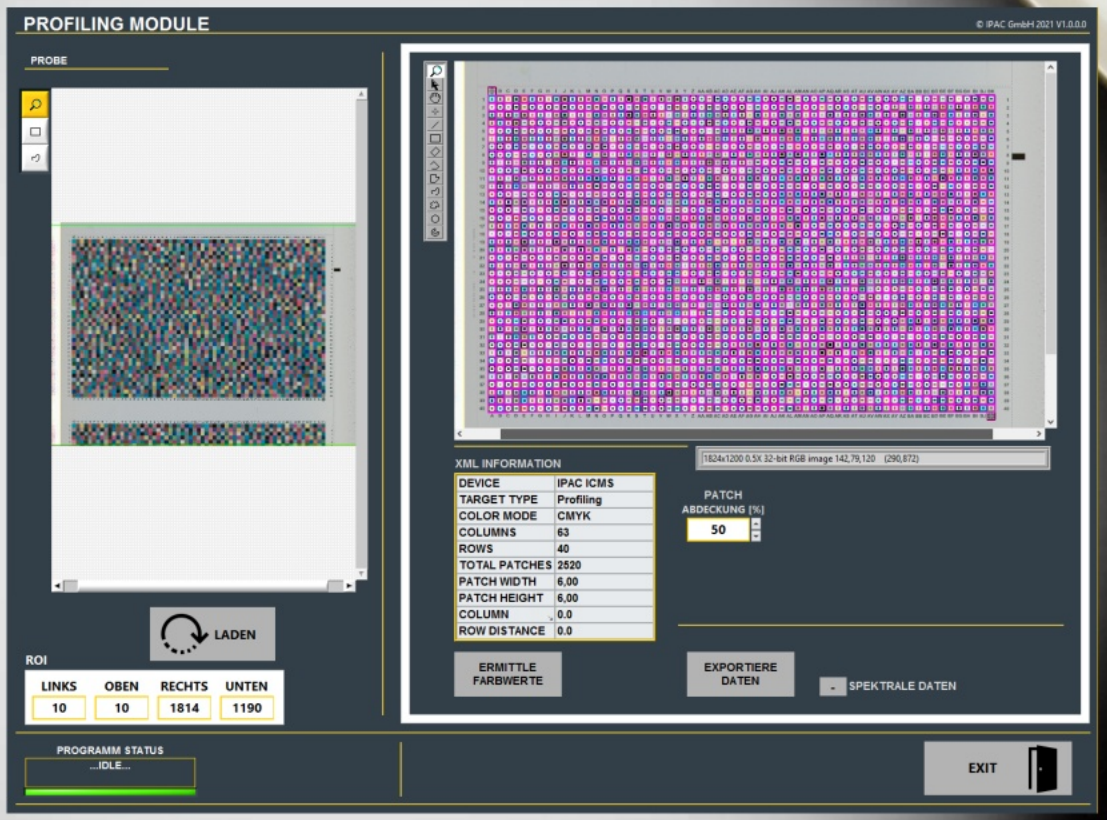
Profiling module



Automated patch detection

Export of 2520 colour values in ONE step

Duration Scan + Detection + Export

< 1 minute

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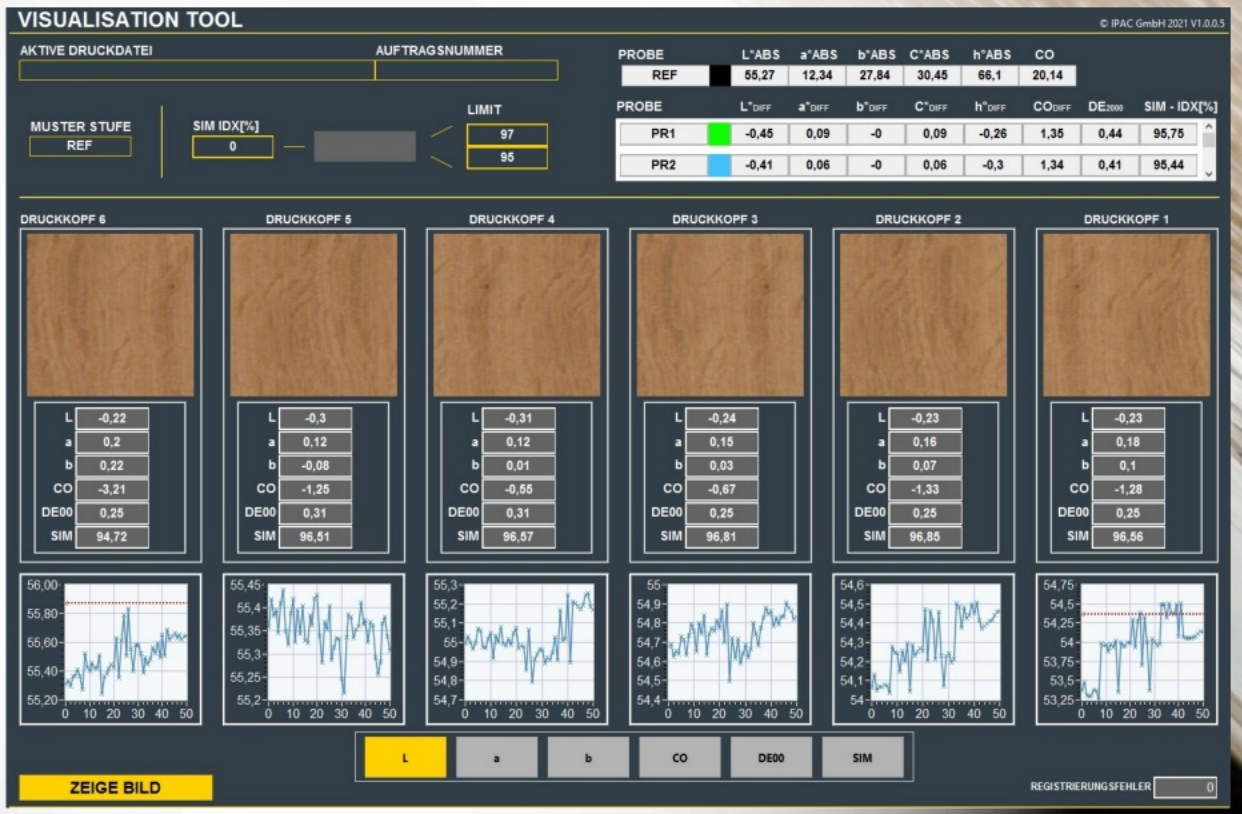
Production monitoring



Digital reference

Clocked measurement (not continuous)

Format A3

Up to 350 m/min

Color deviation is displayed in numerical values and graphically

Tolerance value setting to trigger action

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Colour matching - Colour Correction Loop

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Colour matching - Colour Correction Loop

Step 1: Registration
Allows a
pixel-by-pixel comparison
between reference and production
scan

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Colour matching - Colour Correction Loop

Step 1: Registration
Allows a
pixel-by-pixel comparison
between reference and production
scan

Step 2: Similarity Index
88%
Out of tolerance

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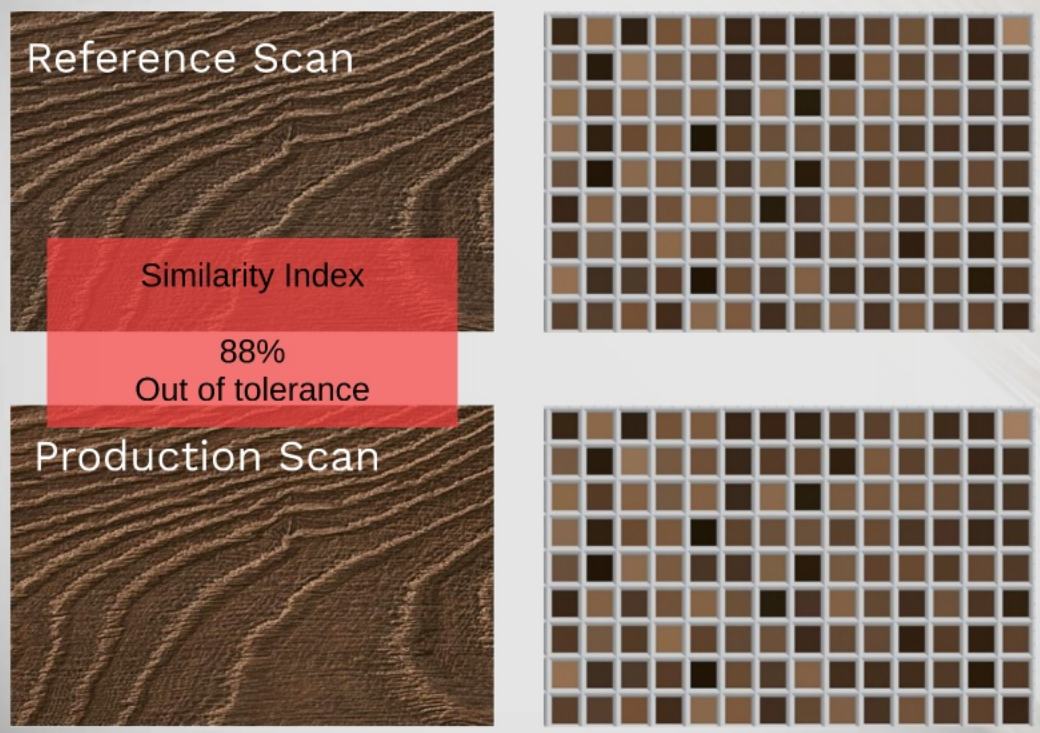
Colour matching - Colour Correction Loop



Step 1: Registration
Allows a
pixel-by-pixel comparison
between reference and production
scan

Step 2: Similarity Index
88%
Out of tolerance

Step 3: Colour Chart
Calculation of the describing colours of the decor - does not have to be printed (symbolic shown as colour patches).

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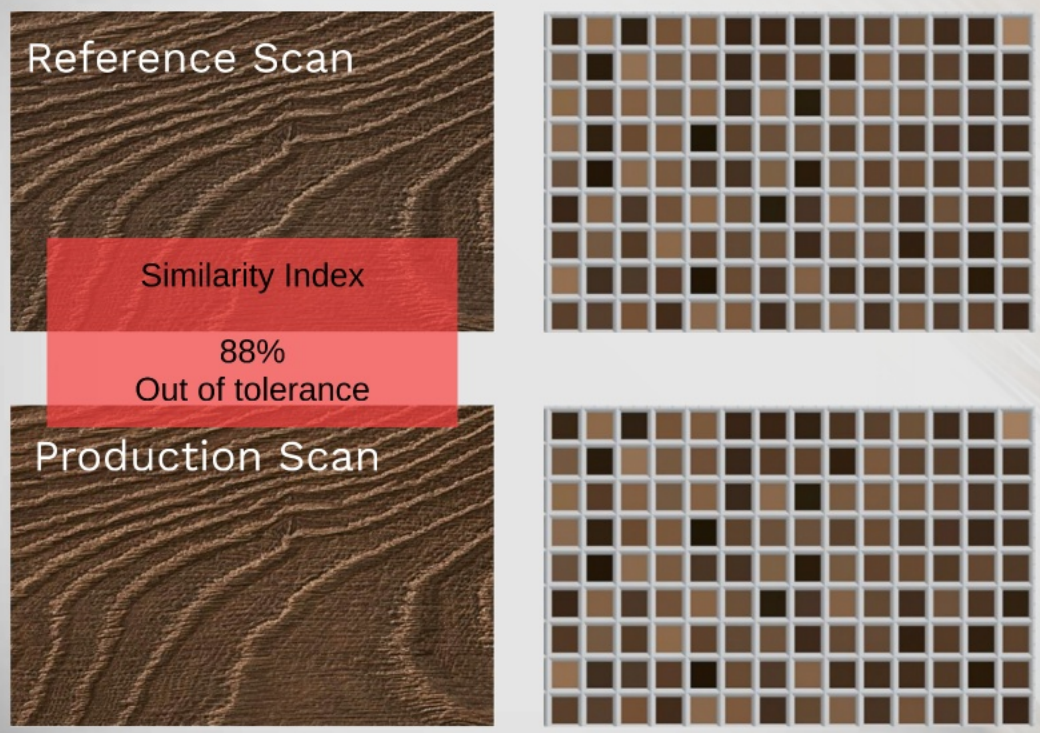
Colour matching - Colour Correction Loop



Step 1: Registration
Allows a
pixel-by-pixel comparison
between reference and production
scan

Step 2: Similarity Index
88%
Out of tolerance

Step 3: Colour Chart
Calculation of the describing
colours of the decor - does not have
to be printed

Step 4: CCL Calculation
Calculation of the colour correction
and printing of the corrected decor

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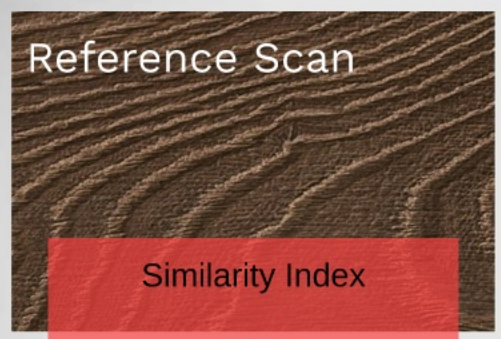
Colour matching - Colour Correction Loop



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Colour matching - Colour Correction Loop

Colour Correction Loop
is iterative

is a layer onto the original printing file - the master file has not been destroyed

Duration of the Colour Correction Loop

ICMS™ zεro < 10 sec
Calculation and export to Colour Management

Colour Management < 15 sec
Calculation
+ RIP (depends on print job)

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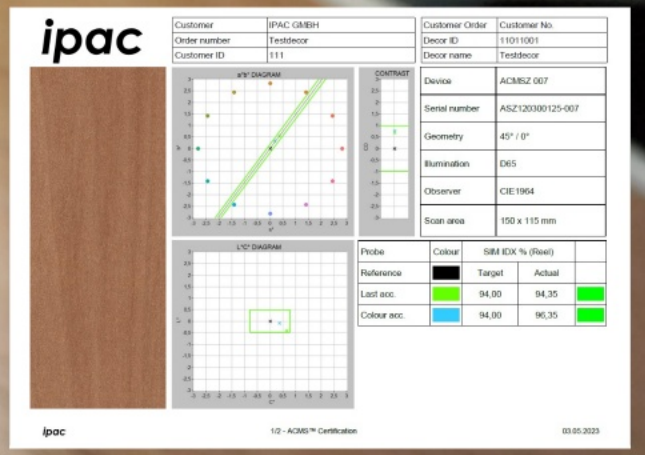
Certification - Drift measurement with ICMS™ zɛro

Certification:

- The objective measurement replaces the subjective (visual) quality control
- Quality control based on the similarity index and channel-specific tolerances
- Certified production stability
- Certification of plain-coloured and decorative products
- Certificates, conform with ISO 24585-2:2023

Drift measurement:

- Monitoring the production of decorative or plain-coloured samples in real time
- Detection of colour drifts within individual roles, batches, ...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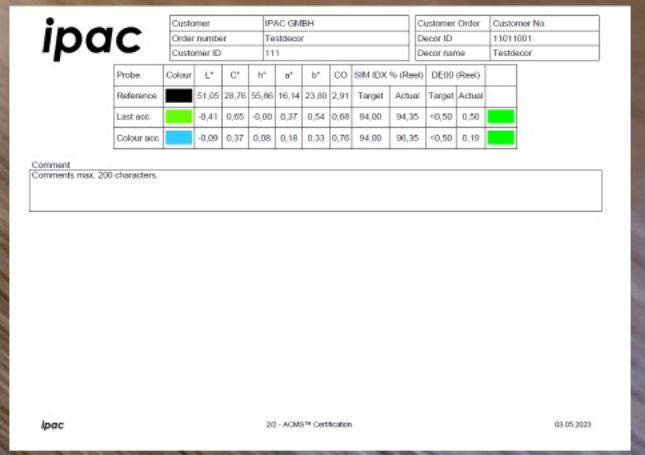
Customer	IPAC GMBH	Customer Order	Customer No.
Order number	Testdecor	Decor ID	11011001
Customer ID	111	Decor name	Testdecor

Device	ACMSZ 007
Serial number	ASZ120300125-007
Geometry	45° / 0°
Illumination	D65
Observer	CIE1964
Scan area	150 x 115 mm

Probe	Colour	SIM IDX % (Reel)	
		Target	Actual
Reference			
Last acc.		94,00	94,35
Colour acc.		94,00	96,35

ipac 1/2 - ACMS™ Certification 03.05.2023


ipac

Customer	IPAC GMBH	Customer Order	Customer No.
Order number	Testdecor	Decor ID	11011001
Customer ID	111	Decor name	Testdecor

Probe	Colour	L*	C*	h°	a*	b*	CO	SIM IDX % (Reel)		DE00 (Reel)		
								Target	Actual	Target	Actual	
Reference		51,05	28,76	55,86	16,14	23,80	2,91					
Last acc.		-0,41	0,65	-0,00	0,37	0,54	0,68	94,00	94,35	<0,50	0,50	
Colour acc.		-0,09	0,37	0,08	0,18	0,33	0,76	94,00	96,35	<0,50	0,19	

Comment
Comments max. 200 characters.

ipac 2/2 - ACMS™ Certification 03.05.2023

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Customer Benefit ICMS™ zεro

- Replacement of visual assessment with objective measurements
- Replacing the manual colour correction (e.g. Photoshop) with the Colour Correction Loop
- Profiling, production monitoring and certification
- Time, waste and cost savings out of the profiling, Colour Correction Loop and certification
- Consistent documentation of the process → base for subsequent optimization
- Reduction of the psychological stress for employees

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