



Fogra/ERA ISO News 30

Munich, May 2023

International standardization for the printing industry ISO TC 130 represents the international standardization body for the printing industry. International experts, active in terminology, prepress, printing, postpress, climate neutrality, materials and certification, met as of 2023 in hybrid meetings beginning with Chiswick/London on 2023-04-17/21. The next meeting is planned for late October 2023 in Tokyo.

Minutes from Dr Andreas Kraushaar

The following project descriptions originate from the ISO news from Fogra while focussing on ERA specific projects. Dr. Uwe Bertholdt retired from Fogra end of 2022.

Standardization in packaging gravure printing (ISO 12647-10)

On the initiative of Italian Rotogravure Group, represented by Carlo Carnelli, a new part of ISO 124647 family of standards has been proposed that describes standardization in packaging gravure printing. This new section 10 of the ISO 12647 documentation is tentatively termed "Part 10: Packaging Rotogravure printing". It should specify the requirements for the exchange of data and information necessary for the definition of the aims for process and spot colour gravure printing of packaging materials. It is based on the use of colour characterization data to define the colorimetric printing aims and includes appropriate assignment of responsibility and recommended tolerances on critical parameters of the Rotogravure printing process. In order to provide a mature document to start a new project ballot (NP) at the coming Tokyo meeting he is reaching out to experts outside Europe.

Anyone is invited to contact him with respect to contributions in the area of substrate influence, lamination, transparency and base coat, absorbent substrates, image positioning tolerances, printing reproducibility, preliminary fingerprinting, definition of proper test cylinder element, reporting process, ink kitchen management as well as press sets on quality results.

Digital quality assessment for decorated surfaces (ISO 24585)

This standard was created in record time: from the project idea originated by IPAC at the end of 2019 to the final vote in April 2023, the two parts of the standard ISO 24585-1 and -2 were finished. It is the first internationally agreed method to qualify multispectral imaging devices

and a reporting method to compare two designs objectively while being perceptually uniform and meaningful.

The standard is designed as a multipart document. Focussing on the spatial resolved capturing of reflectance spectra aiming for graphic arts use cases the standard is now termed "Graphic technology - Multispectral imaging measurement and colorimetric computation for graphic arts and industrial application - Part 1: Parameters and measurement methods" and "Part 2: Requirements for decorative surfaces". In other words, ISO 24585 can be considered as the ISO 13655 for images or the "big brother of ISO 13655".

Part 1 defines the framework for core requirements that compile the following parts, namely the metrics for specifying the influx (1), the sample preparation (2), the detection of the outflux including the spectral match quality (3), the multispectral storage format (4), as well as the calculation of CIELAB images (5) and finally metrics for the comparison of multispectral images (6). Based on this framework, similar to ISO/TS 15311-1, the following parts should define clear use cases and specify the target values and tolerances for the corresponding parts. Part 2, for example, should reflect the measurement and evaluation of image inspection in the laminate and flooring printing market. The DIS ballot was approved for both parts. At the London meeting it was agreed to send out part 1 for direct publication. Due to minor technical changes for part 2 an FDIS-ballot is needed. This does not allow any technical changes; hence a publication can be expected for late 2023.

D50noUV – towards a second reference viewing environment (ISO 3664)

D65 and D50 are the dominant standard illuminants for colour assessment in different industries. Due to the advent of high speed inkjet printing the D50 based graphic arts and publishing sectors meets industrial spaces such as furniture, plastic, textiles, metals, paper, cardboard, edge bands and more. Bridging both sides is one motivation for the ongoing revision of ISO 3664, which focusses on the D50 based viewing in the graphic arts.

Based on the systematic revision request 2 years ago experts from both parties of this joint working group namely TC42 (photography) and TC130 (Graphic technology) were asked to respond. From Fogra three main points were considered to be useful to integrate. First the tightening of tolerances since modern LED-based luminaires have shown that the tolerances can be narrowed – to reflect state of the art technology and also improve colour appraisal by reducing visual differences among different models. Second modern viewing stations to be combined with operator control stations on modern digital and analogue printing presses should be covered. In particular, from Japanese experts a separate illumination condition named "P3" should be added. It should reflect viewing with D50 but with no UV (so corresponding to measuring M2 as defined in ISO 13655) – in order to reflect the circumstances when printed matted is viewed indoor and with obviously less or no UV. That change is discussed lengthy since it implies many practical challenges such as what to do as a print service provider when getting D50 data (e.g. FOGRA51) but it should be assessed with P3. For a more technical

discussion, please follow DPWG mailing list or read the minutes from the last DPWG meeting. Third since neither ISO 3668 nor ASTM 1729 covers clear conformance requirements (but requirements for actual colour assessment) for a D65 based viewing cabinet an informative annex should be added to ISO 3664 that addresses D65-based conformance analogue to the prevailing D50 based specification.

The first meeting was held virtually early February and another CD consultation was agreed. The revised draft will be discussed at the next TC42 meeting in June in Japan. Currently the project is in CD status and after the next meeting another CD circulation can be expected.

The complete ISO News 30 will be available soon.

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