Correct Handling with Proofs and ICC-Profiles

- Colour-compliant proofs have to match with the criteria of ISO Normally 12647-7 or corresponding to Print Media Standard.

- The simulation of proofs has to match with the real print run paper class to reach the desired colour results for the final product within the PSO-specifications.

- On every colour-compliant proof there must be an Ugra/Fogra media wedge in original size.

- The evaluation of the media wedge is done by test or inline printing.

- Covering and folding in the printed media wedge area must be avoided.

- We ask for printing an information about file name, date, source and target profile, rendering intent and information about the proof-system on the proof itself.

- The proofs have to show the transferred data. In case of modifications afterwards the creation of a new proof is mandatory.

For ensuring a colour-compliant printing result, the data-profiling and proof-simulation have to match with the paper on the print run. Information about profiling is on the following page. Concerning papers which are not listed, please contact our customer service for individual consulting.

example for a colour-compliant proof

General Paper Information and Recommendations about File Delivery

Material	Proof	ICC-Profil	GGP-Joboptions
Cover board white	Fogra 51	PSOcoated_v3.icc	GGP-Media-PS-1-NEU-PSO-Coated-V3-Fogra-51L.joboptions
Cover board creamy	Fogra 39	ISOcoated_v2_300_eci.icc	GGP-Media-PK-1-2-alt-IsoCoated_V2-300_Fogra-39L.joboptions
Art paper, wood-free, white	Fogra 51	PSOcoated_v3.icc	GGP-Media-PS-1-NEU-PSO-Coated-V3-Fogra-51L.joboptions
Art paper, wood-free, creamy	Fogra 39	ISOcoated_v2_300_eci.icc	GGP-Media-PK-1-2-alt-IsoCoated_V2-300_Fogra-39L.joboptions
Offset, white	Fogra 52	PSOuncoated_v3_FOGRA52.icc	GGP-Media-PS-5-NEU-PSO-Uncoated-V3-Fogra-52L.joboptions
Book paper, creamy	Fogra 30	ISOuncoatedyellowish.icc	GGP-Media-PK-5-IsoUncoatedYellowish-Fogra-30L.joboptions
Endpaper, uncoated white	Fogra 52	PSOuncoated_v3_FOGRA52.icc	GGP-Media-PS-5-NEU-PSO-Uncoated-V3-Fogra-52L.joboptions
Endpaper, creamy	Fogra 30	ISOuncoatedyellowish.icc	GGP-Media-PK-5-IsoUncoatedYellowish-Fogra-30L.joboptions
Special material			
Natural Strong Board	Fogra 52	PSOuncoated_v3_FOGRA52.icc	GGP-Media-PS-5-NEU-PSO-Uncoated-V3-Fogra-52L.joboptions
Wibalin smooth (white)	Fogra 47	PSO_Uncoated_ISO12647_eci.icc	GGP-Media-PK-4-PSO-Uncoated-ISO-12647-Fogra-47L.joboptions
Surbalin smooth (natural white)	Fogra 47	PSO_Uncoated_ISO12647_eci.icc	GGP-Media-PK-4-PSO-Uncoated-ISO-12647-Fogra-47L.joboptions
Surbalin smooth (diamond white)	Fogra 52	PPSOuncoated_v3_FOGRA52.icc	GGP-Media-PS-5-NEU-PSO-Uncoated-V3-Fogra-52L.joboptions
F-Color (creamy)	Fogra 47	PSO_Uncoated_ISO12647_eci.icc	GGP-Media-PK-4-PSO-Uncoated-ISO-12647-Fogra-47L.joboptions
F-Color (high white, light white)	Fogra 52	PSOuncoated_v3_FOGRA52.icc	GGP-Media-PS-5-NEU-PSO-Uncoated-V3-Fogra-52L.joboptions
Peydur Lissé	Fogra 47	PSO_Uncoated_ISO12647_eci.icc	GGP-Media-PK-4-PSO-Uncoated-ISO-12647-Fogra-47L.joboptions
Peyprint smooth	Fogra 52	PSOuncoated_v3_FOGRA52.icc	GGP-Media-PS-5-NEU-PSO-Uncoated-V3-Fogra-52L.joboptions
Peytan ribbed / smooth (white)	Fogra 39	ISOcoated_v2_300_eci.icc	GGP-Media-PK-1-2-alt-IsoCoated_V2-300_Fogra-39L.joboptions
Symbol Tatami white (GGP house standard)	Fogra 39	ISOcoated_v2_300_eci.icc	GGP-Media-PK-1-2-alt-IsoCoated_V2-300_Fogra-39L.joboptions
Black and White production (text and greyscale)		**PDF X1a - Dot Gain 20%**	**GGP-Media-DotGain-20.joboptions**

Feel free to contact your account manager if you have any questions about profiling other materials.

Notice: For using GGP-Media Joboptions, there is a need to first install all relevant ICC-profiles on your system.

Download-possibility: GGP Media Joboptions: **https://www.ggp-media.de/service/**
ICC-Profile: http://www.eci.org/de/downloads

- **Proofs in a wrong Fogra-standard,** (eg. Proofs in Fogra39 – print carrier ist Fogra51) – do not apply as colour-compliant and therefore the printing result cannot be contested.

- **Proofs without media wedge and without test label** (eg. Digital printings, pictures, drawings) – do not apply as colour-compliant and therefore the printing result cannot be contested.

- **Press proofs on other print carriers or printing processes** – do not apply as colour-compliant and therefore the printing result cannot be contested.

Example of a sheet offset test print
Delivered data & proof in Fogra39 – print carrier Magno Gloss (Fogra51)

Press Proofs adjusted to PSO
Data in the original are printed with Fogra39

Comparison of Proofs

left Fogra51, appropriate to printing material Magno Gloss,
right Fogra39, the paperwhite-simulation of the proof is too yellowish,

The missing yellow in the data cannot be compensated by the printing machine,
therefore the wrong proof and the printing result visually do not match.

Fogra51

Fogra39
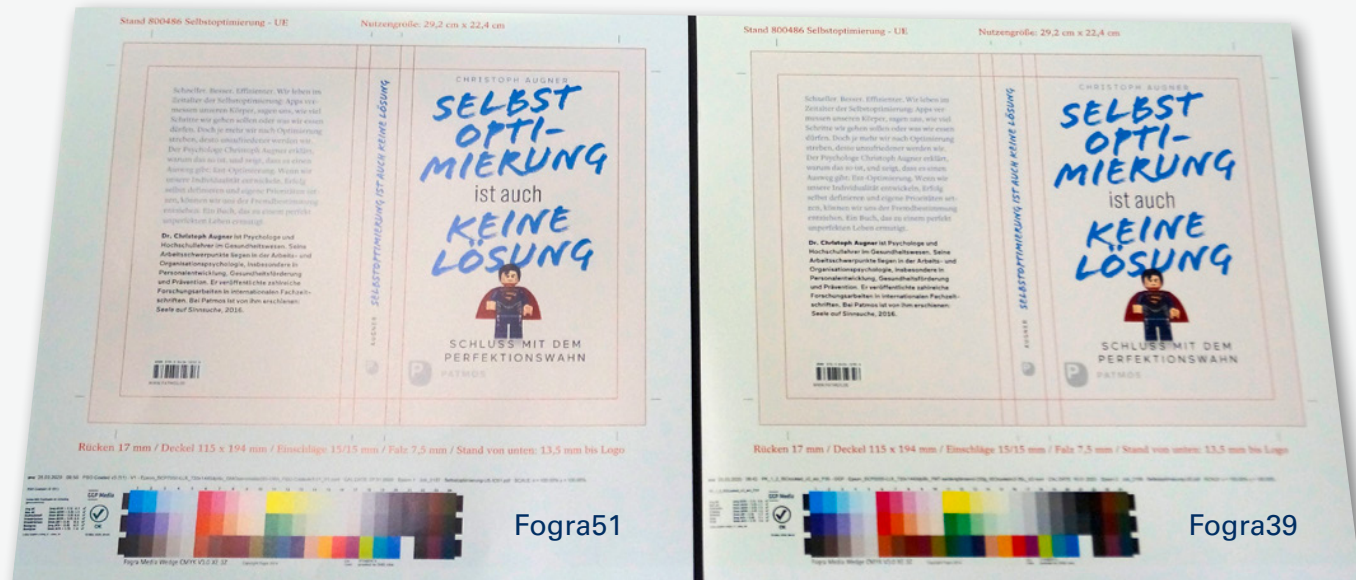
Comparison of Printing to Proof and Printing to PSO

Printed sheet adjusted to customer proof, PSO-tolerances were exceeded, no replicability possible.
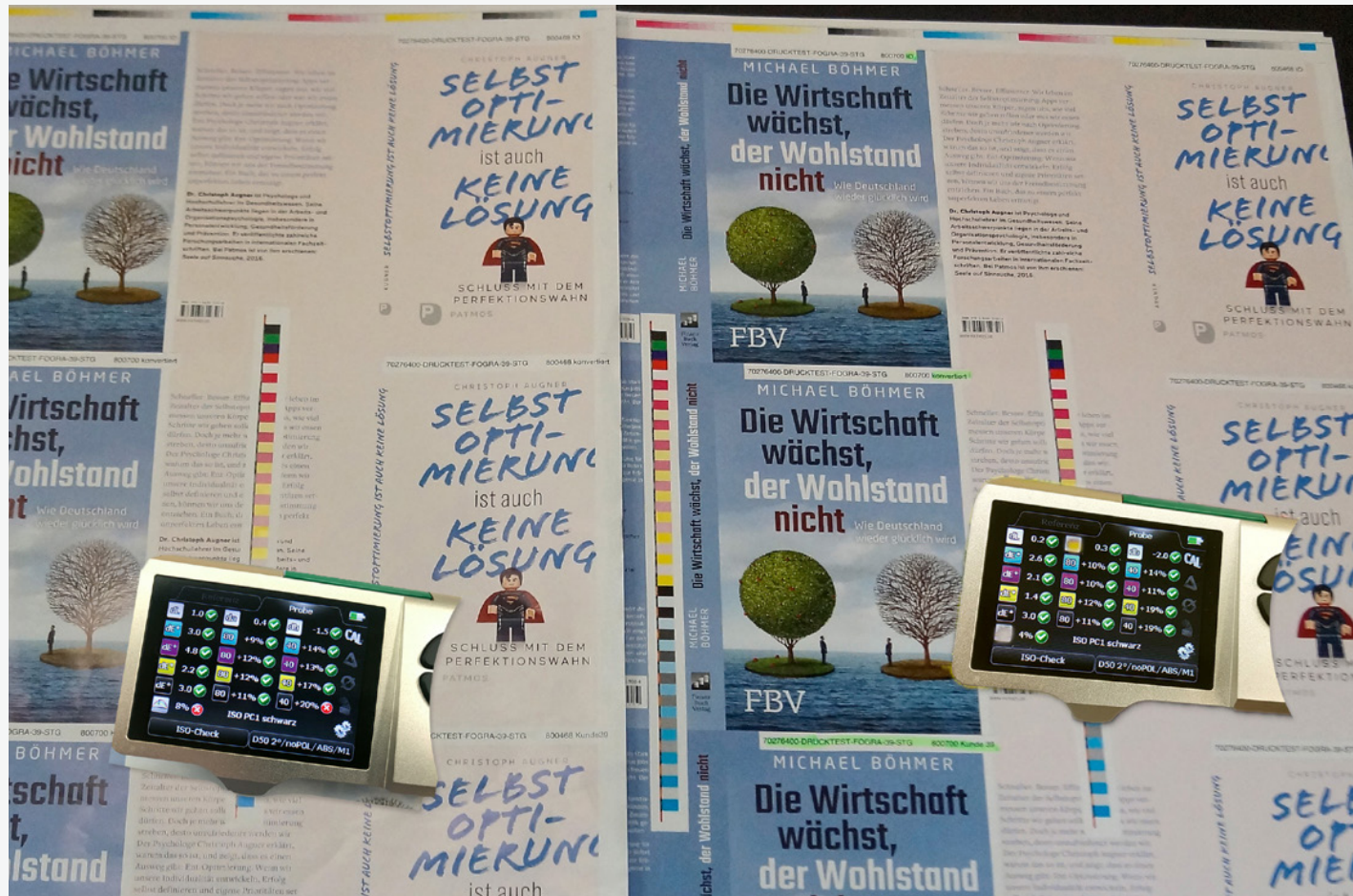
Printed sheet adjusted to PSO, an incorrect proof normally cannot be reached in terms of colours.

Conclusion

- **With incorrect proofs printing has often to be done outside of PSO-standards to get a relativly similar colour result compared to the proof see pictures above.**
- **The printing machine ink zones have to be adjusted, there is an over- or under inking result.**
- **Standards for colour density and dot gains are not fulfilled.**
- **There is a need for adjustments in terms of dot gains during CtP (new plates, machine waiting time).**
- **Set up times and the amount of misprints exceed the calculated quantity.**
- **Replicability of reprints under these circumstances is impossible.**

Permitted Tolerances in PSO (Print Media Standard)

In case of printing according to PSO, there are determined colour locations in the LAB-colour space which have to be matched. Delta E shows the distance between two colours measured in the LAB-colour space. *Colour-compliant printing is defined by a maximum tolerance of delta E > 5, which must not be exceeded.*
In practice it is possible that there is a delta E of 9-10 in comparison of two print products.

*Example: Printing very bluish Delta E = 4,3 – Proof very yellowish Delta E = 4,8.*

In conclusion there is a Delta E of 9,1 between the two products.
Both results are within the prescribed PSO-tolerances and are not contestable, but printing and proof have nothing in common concerning the colours.
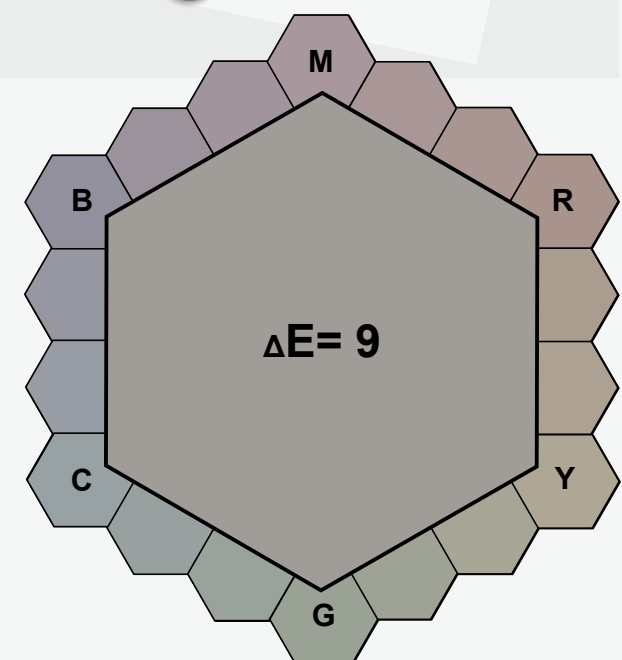
Example of changes in colour perception of a four-colour grey in relation to Delta E

ΔE= 1

ΔE= 5

ΔE= 9
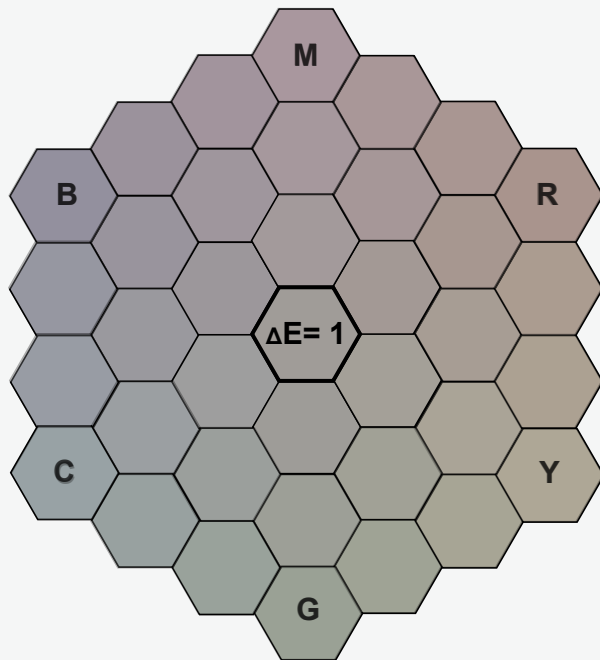
ΔE 0,5 -1,0   difference in colour may be noticeable for experienced eyes

ΔE 1,0 - 2,0   no noticeable difference in colour
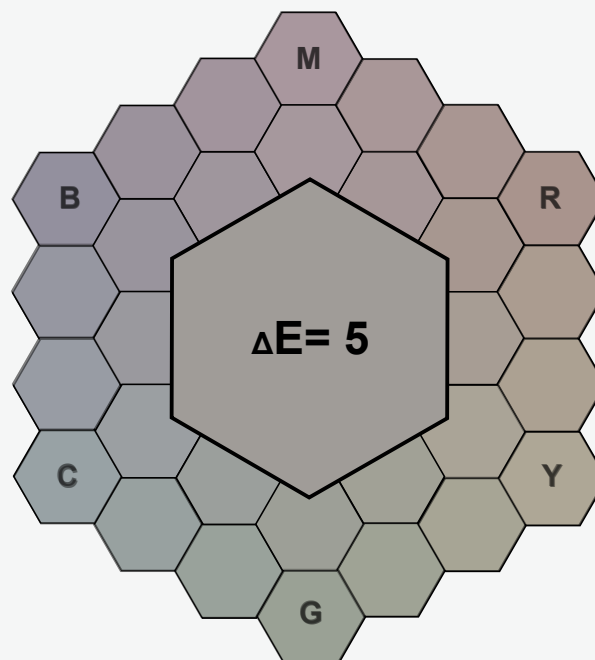
ΔE 2,0 - 4,0   noticeable difference in colour

ΔE 4,0 - 5,0   very noticeable difference in colour which normally is not tolerated in practice

ΔE > 5,0   the difference is regarded as another colour