

## REPRODUCTION SPECIFICATIONS PROOF VERIFICATION PROCEDURE

1. After submitting the filled-in Profile Order Form the Client receives from the RR Donnelley an ICC profile which characterizes an appropriate printing process, a control CMYK file (containing inter alia ECI 2002 test) and  $L^*a^*b^*$  values of ECI 2002 test calculated by the software after an application of the given ICC profile.

NOTICE 1: If a paper size of Client's proofs is smaller than the size of the control CMYK file (34,75 x 50,06 cm) it is necessary to inform RR Donnelley about it before sending the contract proofs – the Client will receive a modified control CMYK file.

NOTICE 2: If the Client uses his own simulation ICC profile it is necessary to inform the RR Donnelley about it.

2. The Client sends back a print of the control CMYK file printed exactly the same as the rest of the contract proofs for one print production. Because of a further control a control strip should be situated on each separate page/set of proofs. The recommended control strip is the Ugra/FOGRA MediaWedge V. 2.0. If the Client uses other control strip please send its digital equivalent to RR Donnelley.

Proofs that do not fulfill the requirements above may not be used as a color guidance on press without additional notification. In such cases print will be done according to general quality standards (density, dot gain).

3. It is strongly recommended to use the paper containing none or as little as possible of optical brighteners. After a spectrophotometer measurement of non-printed proof paper without UVCUT filter the result on the b axis should not be less than  $-3$ . Furthermore,  $\Delta E$  between a measurement without UVCUT and one with UVCUT should not be larger than 3.

If the proofing paper does not fulfill the requirements above, problems with the visual comparison of print and proof may occur.

4. After receiving a target proof from the Client:

a. Proof is made correctly if differences between  $L^*a^*b^*$  values measured on a proofed ECI test and the  $L^*a^*b^*$  values calculated by the software after a given ICC profile application are within the tolerances below:

Recommended average  $dE < 3,0$ ; conditionally acceptable average  $dE < 4,0$

Recommended maximum  $dE < 8,0$ ; conditionally acceptable maximum  $dE < 10,0$

$dE$  of the substrate  $< 3,0$

$dE$  of the solids of the process colors  $< 5,0$

Recommended gray balance  $dE < 2,50$ ; conditionally acceptable gray balance  $dE < 3,50$ .

b. If all  $\Delta E$  values are within the tolerances from point 4a, a visual comparison of pictures on a target proof made by the Client and one proofed by the RR Donnelley is made.

The visual comparison ought to be made in standard conditions, according to ISO 3664:2000.

The result of a visual comparison the target proof is rated as below:

- 5 – no visual differences between the Client's proof and the RR Donnelley's proof
- 4 – visible slight differences between the Client's proof and the RR Donnelley's proof
- 3 – visible evident differences between the Client's proof and the RR Donnelley's proof
- 2 – visible significant differences between the Client's proof and the RR Donnelley's proof

**5.** Additionally for maximum stability of proofs and for minimizing problems during the printing process it is strongly recommended the deltaE values of control strips of the contract proofs made for one print production to be within the tolerances below:

Average dE < 2,0

Maximum dE < 5,0

dE of the substrate < 1,50

dE of the solids of the process colors < 2,50

**6.** If a proofed control CMYK file fulfills the recommended requirements from points 3, 4a, its visual comparison is rated at least at 4 and the deltaE values of control strips of the contract proofs made for one print production fulfill the requirements from point 5, the proofs are rated as OK.

If a proofed control CMYK file fulfills the conditional requirements from points 3, 4a, its visual comparison is rated at least at 3 and the deltaE values of control strips of the contract proofs made for one print production fulfill the requirements from point 5, the proofs are rated as conditionally OK.

If a proofed control CMYK file does not fulfill any of the requirements from points 3, 4a, 5 or the visual comparison is rated at 2, the proofs are rated as not OK. Furthermore they may not be used as a color guidance on press without any additional notification. In such cases print will be done according to general RRD print characteristic described in appropriate ICC profiles.

**7.** After the numerical and the visual verification RR Donnelley relays the result to the Client.

**a.** The result of a proof verification is noted in a Profile Base.

**8.** If there is a need to check the propriety of proofs during the printing process – RR Donnelley can make a measurement of a control strip from adequate page/set of proofs. The deltaE values between measured control strip and values calculated after implementation of the given ICC profile should be within the tolerances from point 4a.