Analysis of trapping of color sequences of multicolor offset printing

Dr. Abd El Rahman Ragab
Prof. Magdy Ezzat Abd El Kader
Printing, Publishing and Packaging Department, Faculty of Applied Arts, Helwan University, Egypt

Abstract
Ink trapping is defined as the amount of the second ink transferred on top of the first ink during process color printing. It is estimated optically with the use of densities.
The problem of this paper was to compare quality of printed products of print attributes (Ink Trapping) of multicolor litho-offset printing, as a limited specific condition study, in Egypt market . It was found from the review of literature that color sequence of multicolor printing process had differences on the quality issue. The density-based is defined as the ratio of the 'weton-wet' ink trapping. Density-based ink trapping ratios are compared. The effect of ink sequence and ink trapping ratio on overprint colors are examined.

Keywords
color trapping, color printing sequence, process inks, multicolor offset printing, ink trapping ratio

References

1- Robert Chung and Fred Hsu, A Study of Ink Trapping and Ink Trapping Ratio, Test Targets, Rochester Institute of technology, 2008.
2- Evan Andersen, Effect of Ink Sequence on Offset & Digital Printing, Test Targets, Rochester Institute of technology, 2008.
3- X-Rite. 2010, A Guide to Understanding Graphic Arts Densitometry, X-Rite. 2010
4- Robert Chung, Fred Hsu, Daniel Clark, and Khalid Husain, Weight-based Ink Trapping Assessment, TAGA, 2009.
5- Viggiano, J.A. S. and Prakhya, S. H, Prediction of Overprint Spectra Using Trapping Models: A Feasibility Study, TAGA 2008 (a student technical journal), pp. 113-133.
6- ISO 12647-1 (2004). Graphic technology — Process control for the production of half-tone colour separations, proof and production prints —Part 1: Parameters and measurement methods.
7- ISO 2846-1: 2006, Graphic technology — Colour and transparency of ink sets for fourcolour-printing —Part 1: Sheet-fed and heatset web offset lithographic printing.
8- ISO 12647-2: 2004, Graphic technology — Process control for the production of half-tone colour separations, proof and production prints —Part 2: Offset lithographic processes.
9- ISO 5-3:2009 Photography and graphic technology -- Density measurements -- Part 3: Spectral conditions.