UDC 655. 26+004.925.5

**QUANTITATIVE EVALUATION OF QUALITY OF Image color separation for Color Printing**

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***Research methodology.*** *The work has studied 40 color digital images, illustrations potential printing products pictures using the program Adobe PhotoShop CC, according to standard profiles Coated FOGRA 39, Web Coated SWOP 2006 Grade 3 Paper and Coated GRACoL 2006.*

*Quantitative analysis of the use of colors in terms of medium TAС and TAC colors and maximum color and black inks using a new computer program ICaS-Color Synthesis-2 has been done.*

***Results.*** *As a result of quantitative analysis we have found that the percentage of the total ink TAC of CMY and TAC of CMYK is a constant value for all studied originals. In all cases, the TAC of CMYK is the same and 30% limit is different from that recorded in ISO 12647-2. If the color separation of images is on a standard profile Coated GRACoL 2006, the total area coverage on the darkest areas is, on average 367%, which is 57% higher than the threshold value. TAC of values for CMYK images using color separation profile Web Coated SWOP 2006 Grade 3 Paper is 350% instead of 300%.*

***Novelty.*** *So, for the first time there is an opportunity to stage prepress forms quantitatively to characterize each specific image color separation conditions using various standard profiles and estimate the degree of compliance with the International Standard for color printing. It has been proved that the TAC of CMYK value for all images separated by colors for the same conditions is a constant value and does not depend on the characteristics of the plot. Therefore, the limit value of max TAC color is advisable to choose a criterion for assessing the quality separations.*

***Practical significance.*** *The proposed method for quantitative evaluation of images in terms of TAC allows the prepress stage to predict the outcome of specific color reproduction for printing images. The program ICaS-Color Synthesis-2.0. also allows to analyze the color separation of images in the areas where total ink percentage exceeds prescribed in the standard.*