

Using the most suitable polymeric materials used for printing on the liquid electrograph technique to achieve the printing quality (color “L,a,b”, density and dot gain)

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Abstract:

Some documents face the problem of damage as a result of their short life span, and it is worth noting here that the global trend and also in the Arab Republic of Egypt recently is moving towards the use of polymers as an alternative to traditional paper materials in many important documents, and this corresponds to facing many challenges, including print quality when printing on Polymeric materials, and one of the most famous modern printing methods is liquid electro photographic technology such as Indigo printers, which combine the two traditional litho-offset printing methods in terms of using a rubber medium to transfer the image in printers and the electro photographic digital printing in terms of the mechanism of exposure to the image using the electrostatic image, so it is called digital offset printing. It was necessary to determine the most suitable polymeric materials used in the Arab Republic of Egypt to print on it using liquid electrophotography to obtain the required print quality (color measurement, density, point growth), and to achieve this goal, experiments were carried out using many polymeric materials on the HP Indigo 7800 printer, and results were reached. Experiments to that ores (special synthetics resin paper) SSRP, Poly art material does not accept liquid electro photographic printing, and it was the best print quality on Teslin polymers SP even though it was lower than the standard values of ISO 12647-2, although SYNAPS polymers OM gave good results in Some quality measurements, as there are no reference values for the quality measurements of polymer materials, and accordingly the researcher concluded that it is not recommended to print on materials (SSRP, Poly art) using liquid electrophotography, as it is not acceptable to print on it with this printing technique, and that the best material is when using The liquid electro photographic technique is Teslin polymers SP, as it was the most suitable polymeric material used in the Arab Republic of Egypt to print on it with this technology in terms of quality.

Keywords

Printing quality - L*a*b*– density - dot gain - ISO12647-2.