

Determining the most appropriate printing techniques for digital printing to achieve printing quality of Teslin polymers

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Abstract:

Some documents in the Arab Republic of Egypt face a great challenge, which is the problem of 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 therefore the research has addressed the possibility of printing on raw materials. Teslin polymers, facing many challenges, including print quality when printed on any of the digital printing techniques in terms of determining the most appropriate digital techniques for printing on plastic Teslin material to obtain the required print quality by measuring both (Lab values of colour, density, dot gain and trapping). And to achieve this goal, this research has dealt with the theoretical, practical and analytical study of both the raw material that has been experimented with and the digital printing techniques used in the practical experiments of printing on the Teslin material, which is an inkjet technique using the Com Color GD 9630 Riso printer, and the dry electro photographic technique using Library printers with limited production, which is the HP Color LaserJet Enterprise M553 printer, and also the dry electro photographic technology using quantum production (mass production) printers a Ricoh C7200 SL printer, and liquid electrophotography technology was used using the HP Indigo 7800 printer, and the study concluded that The most suitable technology for digital printing on the two-fold material is the Dry electrophotography technology using limited-production library printers, which is the HP Color LaserJet Enterprise M553, and also dry electrophotography technology using quantum printers, which is the Ricoh C7200 SL, and that inkjet technology using the Com Color GD 9630 Riso printer is not suitable for printing.

Keywords:

Trapping – density - dot gain