The effect of flexographic printing plate micro patterning on the visual appearance of solid areas printed on flexible packaging materials

Tamer Ali Abdelmageed Khaleel
Helwan University, Egypt

Introduction & Aim: One of the important factors affecting the quality of printed flexible packaging materials is the poor visual appearance of solid areas using flexographic printing plates. The primary goal of this study is to improve the visual appearance of solid areas printed on flexible packaging materials by adding micro patterns to the flexographic printing plates that can enable the optimum ink film thickness for printing of solids on flexible packaging materials. Hope to ensure the highest possible maximum density (D-Max) for solids, as measured by a densitometer. Also to overcome the physical problems of fluids and flat surfaces by moderating hydrostatic forces and surface tension of the ink film.

Materials & Methods: Different square solid patches were printed with different patterning parameters, using different screen ruling of anilox rolls and then the printed results using densitometer were measured.

Results & Conclusions: Each anilox roll gave different range of optimum density referring to the pattern parameters.

Biography
Tamer Ali Abdelmageed Khaleel is a Lecturer at Printing and Packaging Department, Faculty of Applied Arts Helwan University, Egypt. In July 2001, he obtained his Master’s degree, titled “Pad Printing Usage For Local Printing On Three Dimensional Objects”. In 2008, he obtained his PhD titled “The advanced technologies of plastic packing & packaging systems for food production”.

tamer.flexography@gmail.com