

NEW APPROACH TO THE PRINTING FORMS MICROSURFACE CHARACTERISATION

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Abstract: *The surface structure of the offset printing forms has the key factor in functioning of the conventional offset printing. Following characteristics are most important: physical-chemical surface properties of the printing forms and surface geometry of the printing forms. One of the greatest causes of physical-chemical changes on the surface is in most cases the processing of the printing forms, i.e. the development of the printing forms. Because of that physical-chemical as well as geometrical changes in the surface microstructure of the printing forms have been observed, caused by the processing conditions of the printing forms and the composition of the developing solution. The changes of the properties of the nonprinting areas by measuring the surface roughness and by SEM analysis have been exclusively observed. The investigations showed that determined physical – chemical changes as well as the geometrical ones appeared. These changes can have considerable influence on the application of the wetting solution on the printing form and on the correct water ink balance during the printing process.*

Key words: *offset printing, CtP plates, nonprinting elements, roughness, SEM analysis*



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