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THE RESEARCH OF INFLUENCE OF PHYSICAL AND MECHANICAL PROPERTIES OF OIL AROMA VARNISHES ON PRINTING PRODUCTS QUALITY IN WEB OFFSET

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**Research methodology.** Research Methodology includes the identifying of the impact of physical and mechanical properties of printing aroma varnish on the quality of finishing the printing products on web offset machines by determining the change of surface tension of aroma varnish and balance of system «varnish-wetting solution».

**Results.** Results of investigation showed that the coating process is influenced by several factors, including surface tension, dynamic angle of wetting the surface of printing forms and paper, their roughness. It was proved that the increasing of the aromatic substance in varnish composition leads to changes in value of the surface tension, deterioration in wetting process during prints varnishing.

**Novelty.** Influence of physical and mechanical properties of printing aroma varnish on the quality of prints finishing was under consideration. It was also confirmed that paper surface topography, its homogeneity, macro and microstructure, roughness parameters of paper, the number of coated layers affect the amount of varnish, which is transferred from form to paper under identical printing conditions (velocity and pressure).

**The practical significance.** It was defined that the ratio of varnish transfer is significantly lower (12.7%) for paper with a lower coefficient of roughness and it is essential for producers to have two matte coated layers.