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PARAMETERS OF INFLUENCE ON QUALITATIVE CHARACTERISTICS OF ECO-FRIENDLY INKS FOR FLEXO

The annual increase in food assortment, which encourages an increase in packaging production, including individual polymer, aggravates the global environmental situation. That is why packaging manufacturers pay a lot of attention to the use of environmentally friendly materials, which are less likely to cause soil and water contamination. Equally important is the guarantee of the safety of the materials used in the packaging in relation to the packaged products and, therefore, the health of the consumer. The widespread use of flexography in the production of packaging is increasing every year due to the widespread use of polymeric materials as well as the speed of obtaining prints and their high quality and the versatility and flexibility of production technology. Modern flexography technologies use eco-friendly environmental paints and coatings. Printing inks for modern packaging are resistant to light, chemicals, physical and mechanical stresses, freezing, thermal insulation, electrical insulation, conductive, adhesive properties of paint layers. Tactile effects creates due to adding special pigments, metallic coatings and glows that are successfully used in packaging design and to protect counterfeit goods.

The systematization of factors affecting the quality of flexographic ink capable of biodegradation is based on the analysis of scientific and technical, professional literature and patent information. It is determined that the main factors affecting the quality of biodegradable flexographic ink are the raw material from which it is made, the technology and equipment used, metrology compliance, human factors or production personnel, storage conditions and destination of finished products.

According to a survey of industry experts, the most priority parameters of the quality of environmental paints are adherence to the technology of production of environmentally friendly paints, the degree of pigment grinding, the level of automation of equipment, stability of the equipment, the recipe for paint, the temperature of storage of paint and components, the shelf life of paint and limit setting. One of the important problems of biodegradable printing inks and coatings is to ensure the stability of their properties over time, while maintaining a high degree of print drying and adherence to their mechanical effects.