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**PLASTIFICATION OF DIENE-STYRENE PHOTOPOLIMERIZABLE
MATERIALS**

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***Research methodology.*** *The results of study of the effect of plasticizers of different nature on physic-mechanical and optical properties of films made from thermoelastics, namely styrene butadiene and styrene isoprene elastomers have been shown. We have studied individual styrene-diene block copolymers and their mixtures with different components (monomers, photoinitiators, dyes, inhibitors), which are part of photopolimeryzation materials.*

***Results.*** *It was established that all investigated plasticizers soften both styrene-diene thermoelastics and photopolimeryzation compositions based on them. Among the studied plasticizers dinonyl phthalate was the most effective. It combines well with the polymer matrix, as evidenced by the low optical density of films from these materials. The second group of studied plasticizers were monomers and oligomers reactionable in the photopolymerization processes. By the magnitude of the elastic and plastic deformation it was found the following row of decreasing plasticizer-monomers plastic action: еthylene glycol dimethylacrylate > triethylene glycol dimethacrylate >> acrylic acid = bis-(triethylene glycol) phthalate dimethacrylate > bis-(diethylene glycol) phthalate dimethacrylate. Monomers: ethylene glycol methylacrylate and oligocarbonate-methacrylate revealed antiplasticizing effect, that is evident from the decreasing of plastic deformation and increasing of optical density. A similar behavior was observed in the case of styrene isoprene thermoelastomers and their compositions.*

***Novelty.*** *It has been revealed that methacrylate monomers can create both plasticizers and anti-plasticizers effect on isoprene-styrene thermoelastics. A number of monomers has been set that reveal a plasticizing effect on the blow-copolymers.*

***The practical significance.*** *The research results may have practical applications for production photopolimerizable materials.*