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# USING OF ORGANIC ADDITIVES IN THE COKING PROCESS OF COAL BLENDS

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*The article provides an overview of the possibility of using liquid organic materials as fuming and sintering additives in coal blends. A classification of these additives by the type of feedstock is proposed, which includes: prepared hydrocarbon mixtures; commercial products of oil refining and coke production; technologically produced additives obtained exclusively to increase the sinterability of coal blend; various types of waste accumulated in an amount that allows them to be used as relatively cheap sintering additives with simultaneous thermal disposal of hazardous substances. The main requirements for the industrial use of liquid organic additives are formulated, which include low cost; stocks capable of ensuring industrial use; viscosity and structure that ensures convenient transportation and mixing with coal blends; increase in the bulk density of the coal blend during its loading; inertness to the material from which mixing devices and transport devices are made; ability to be evenly distributed over the blend volume; a certain fractional and group chemical composition, which allows participating in the formation of a plastic layer; no negative impact on the quality of chemical coking products; no negative impact on the furnace masonry; non-belonging to Class I or II hazardous substances.*

*It has been established that the introduction of additives in certain concentrations can improve the coke strength and significantly increase the yield of valuable coking chemical products (in particular, benzene). It has been shown that organic liquid additives with high density can be used as a medium for introducing finely dispersed inorganic powders (e.g., $B_4C$, SiC, etc.) into the coal blend, which act as volume-modifying additives to produce high-quality metallurgical coke.*

Keywords: coking, coal blend, additives, petroleum products, coking chemicals, waste, coke, sintering.

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