

METALLURGICAL COKEMAKING WITH THE IMPROVED PHYSICOCHEMICAL PARAMETERS AT AVDEEVKA COKE PLANT

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Abstract. The article presents the results of studies regarding the improvement of the qualitative characteristics of blast furnace coke obtained from modified coal blend in industrial conditions of Avdeevka Coke Plant. Inorganic corundum powders are applied to modify the coal blend namely electrocorundum (α -Al₂O₃) and carborundum (α -SiC). It has been found that the introduction of non-caking corundum materials in small concentrations (0.25 wt %) affects the structure of the organic mass of coal as it is assumed that the corundum materials act as centers of crystallization. The influence of a certain type of modifying additive on the quality of coke is significantly dependent on the brand composition of the blend. The use of electrocorundum and carborundum is especially important for blends with reduced caking ability.

Keywords: coal, blend, coke, electrocorundum, carborundum.