

PHASE AND CHEMICAL COMPOSITION OF SLAGS FROM STAINLESS AND ALLOYED STEEL PRODUCTION

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The slag composition from the production of stainless- and other different alloyed steel will be represented. Stainless steel and with silicon alloyed electrical sheet (flat products) are produced through following technological way: scrap melting and oxidation in the Electric Arc Furnace followed by refining in the VOD reactor. By the production of stainless-, tool- and ball-bearing steel (long products), after melting in the EAF, steel is refined in the VAD reactor. Change in the composition of liquid slags from EAF and refining reactors will be discussed on the basis of ternary and quaternary phase diagrams. Special attentions will be paid to complex compositions of chromites (FeO , MnO , MgO) Cr_2O_3 in oxidising slags from the stainless steels production and the reduction mechanism of chromites from these slags with Al and FeSi. Crystallisation way and structure of solidified slags will also be represented.