

Effect of Selected Elements on the Microstructure of Secondary Al-Si Alloys

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This paper deals with influence on segregation of iron based phases on the secondary alloy AlSi7Mg0.3 microstructure by chrome and nickel. It is impossible to remove iron from melt by standard operations, but it is possible to eliminate its negative influence by addition some other elements that affect the segregation of intermetallics in less harmful type. Realization of experiments and results of analysis shows new view on solubility of iron based phases during melt preparation with higher iron content. By experimental work were as an iron correctors used three different amounts of AlCr20 and AlNi20 master alloys. Addition of these master alloys had a significant impact on the shape of intermetallic phases and mechanical properties.

Keywords: secondary AlSi7Mg0.3 alloys, intermetallic phases, iron correctors, AlCr20, AlNi20

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