

Impact of the Elements Affecting the Negative Iron-Based Phases Morphology in Aluminium Alloys – Summary Results

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The presented article includes a summary of the experimental works regarding the possibility of using and replacing more expensive primary alloys with secondary alloys. Although the use of secondary alloys is relatively widespread today, they are mostly used for the production of lower or medium quality castings, respectively with a low ratio of primary and secondary alloys. Experimental works was aimed at the additional processing of the secondary alloys by suitable methods or their combination, to achieve a secondary alloy with mechanical properties similar to the primary one, thus enabling the use of such an alloy to produce high-quality castings. Correctors used during experimental works are Cr, Ni, V and their combination applied to various aluminium alloys with different chemical composition.

Keywords: Secondary alloy, aluminium, iron-based phase, high-quality castings

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