

Modifications AlSi9CuMnNi Alloy by Antimony and Heat Treatment and Their Influence on the Resulting Structure

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Modification alloy is an important part of the metallurgical process, and this also applies, of course, for aluminum alloys, particularly for Al-Si (silumins). As a modification of the material we can use the modification using the selected element or heat treatment of alloys, or a combination of both processes. One of the elements that it is possible to modify the alloy of Al-Si used is antimony (Sb). The paper examines the possible effect of the modification that element and heat treatment on the final structure of the alloy AlSi9CuMnNi. In the experiments were made three castings from the alloy AlSi9CuMnNi without modification, three castings with the modification and without heat treatment, three castings with modification and without heat treatment, and three castings with modification and heat treatment too. The described experiment and analysis are part of extensive research, focusing on a Faculty of Production Technology and Management, J. E. Purkyne University in Usti nad Labem.

Keywords: alloy, aluminum, modifications, antimony structure, heat treatment

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