

The Effect of Different Modifiers in AlSi7Mg0.3 Alloy on Built-up Edge Formation in Machining

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Aluminium and silicon alloys are widely used in practice. But there is increasingly more emphasis placed on the research and development of these materials. The aim of this article is to analyse modified aluminium alloy AlSi7Mg0.3. The paper is focused on the effect of particular modifiers in AlSi7Mg0.3 alloys on built-up edge formation in machining. Four variants of castings (unmodified alloy and alloy modified by chemical elements - strontium, calcium and antimony) were used. All alloys were compared with non-modified alloy. There were moulded castings from each modified variant and the casting of non-modified alloy. It was casted using a gravity-die casting into a metal mould with a thermal insulation.

Keywords: Al-Si alloys, modifiers, machining, built-up edge.

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