

## Metallurgy of the Aluminium Alloys for High-Pressure Die Casting

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The paper deals with the monitoring the metallurgical purity of alloy AlSi9Cu3(Fe) both in the dependence on the input material quality and on the manner of the melt metallurgical treatment. Experiment was divided into two phases. During the first phase there was monitored the metallurgical purity of the input material delivered from the different suppliers. During the second phase was at the standardly prepared melt observed the influence of the degassing time on its metallurgical purity. To evaluate the input material metallurgical purity, Drosstest was performed and subsequently also the metallurgical evaluation of samples. To determine the influence of degassing time on the metallurgical purity of melt, Density index (DI) was monitored. By this index it is possible to evaluate the amount of inclusions and dissolved gas. Based upon the measured values there was determined the degassing time needed to achieve the required values of DI.

**Keywords:** High Pressure Die Casting, AlSi9Cu3, Density Index

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