

The Influence of Carbon and Silicon Content in Ductile Iron on Shrinkage Creation for Castings with Different Wall Thickness

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In modern times there are increasing requirements for quality of products in every part of manufacturing industry. In foundry industry it is not different and from the point of view of quality the most dangerous are hidden casting defects, such as shrinkage cavities. That is why a lot of foundries are researching, how to increase the efficiency of producing castings. This experimental work is dealing with search of the influence of carbon and silicon content in ductile iron on shrinkage creation. In the experimental part there is introduced the production process of test castings and results of ultrasound non destructive method. The object of this paper was to determine the influence of two main alloying elements of ductile cast iron on shrinkage creation with preserving specific strength of mould, which also has an impact on shrinkage creation.

Keywords: Ductile iron, chemical composition, shrinkage, ultrasound.

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