The Influence of Mould Strength on Shrinkage Production for Castings with Different Wall Thickness for Material EN-GJS-400-18LT

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This paper is dealing with the influence of mould strength on a shrinkage production for ductile iron castings. According to pressures that impact a mould cavity the strength of mould is an important parameter by ductile iron pouring. During the solidification of cast iron a non-metallic particle - graphite is released. Depending on graphite amount released in the liquid and in the solidified skin of casting the tendency to shrinking is varying. In the experiment a furan sand mixture is used. The experiment compares a size of the created shrinkage in the castings with different wall thickness poured into a moulds with different strength. For the occurrence of shrinkage and its size evaluation a non-destructive ultrasonic reflecting method was used.

Keywords: Ductile iron, furan sand mixture, strength of mould, shrinkage, ultrasonic testing

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