

## Impact of Silica Sand Granulometry on Bending Strength of Cores Produced by ASK Inotec Process

Martin Conev<sup>1</sup>, Iveta Vasková<sup>1</sup>, Martina Hrubovčáková<sup>1</sup>, Peter Hajdúch<sup>2</sup>

<sup>1</sup>Institute of Metallurgy, Faculty of Metallurgy, Technical University in Košice, Slovakia, E-mail: martin.conev@tuke.sk, iveta.vaskova@tuke.sk, martina.hrubovcakova@tuke.sk

<sup>2</sup>Nemak Slovakia s.r.o., Žiar nad Hronom, E-mail: peter.hajduch@nemak.com

Nowadays, constant pressure on environmental aspects in the foundry industry is calling for an improvement in casting production. The almost not used inorganic binders are coming back to the fore. Into this group, among others, belong binders based on alkali silicate solutions, known as water glass. The new hot-curing binder systems were introduced by different binder manufacturers. In order to compensate disadvantages of alkaline silicate binder, the systems and processes are working with additives and adjuvants which are contained in a binder itself or added in liquid or powder form to the sand mixture. This paper presents the ASK Inotec process and impact of silica sand granulometry on achieved core mixture strength, which is important from a core production and also from a decorating ability point of view. Experiment was performed in laboratory terms using standard equipment and conditions.

**Keywords:** Silica sand, Granulometry, Inorganic binder, ASK Inotec process, Bending strength

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