

## The zone without carbon in alloy layer obtained on steel cast

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**In the submitted article are presented the results of researches on the steel cast with surface alloy layer in this article. The simulation of the disintegration of the elements in the place where two materials were in contact was done in order to observe the effects between them. The temperature, the thickness of the layer, micro hardness and the structure were thoroughly examined. The researches were conducted to examine the zone without carbon forming in the joint of two materials. The influence of pouring temperature, the thickness of the cast wall and the size of pad grain on the zone without carbon forming process were also examined. It was also proposed to base the process of the zone out of carbon forming on the work of chromium carbides forming process.**

**Keywords:** composite layer, ferrochromium, cast, mechanism of creation, the zone without carbon

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