

## The Study on Treatment Technology of Fused Carbonized Blast Furnace Slag

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**Abstract :** The melt carbonized blast furnace slag containing TiC was produced by carbothermal reduction of high titanium blast furnace slag. The treatment technology of melt carbonized blast furnace slag with TiC as raw material was studied, including the influence of different cooling methods, crushing atmosphere and sieving particle size on the target product TiC in the slag. The results show that air-cooling and water-cooling have little effect on TiC content of molten carbide blast furnace slag, and have great effect on crystal structure and grain size. TiC content in slag is different when carbide blast furnace slag is crushed in argon atmosphere and air atmosphere. After screening, the difference of TiC content of carbide blast furnace slag with different particle size distribution is obvious. The average TiC content of 100-400 mesh carbide blast furnace slag is 14%. And the average TiC content of carbide blast furnace slag with particle size less than 400 mesh is 10.5%.

**Keywords :** crushing atmosphere, cooling methods, sieving particle size, TiC

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