



Contribution ID: 27

Type: **Oral Presentation**

The Effect of Ferrovanadium as an Inoculant Using in HSS Rolls using in light section mills

Wednesday 8 October 2025 10:00 (20 minutes)

High speed steel rolls (HSS) have replaced the traditional high chromium iron rolls (HCI) in many hot strip mills and acicular rolls in log products mills showing very good results for quality and productivity improvements. This paper describes The effect of ferrovanadium inoculation on the microstructure and properties of high speed steel (HSS) used for light section mill was studied. The results showed that the as-cast eutectic carbide network tends to be broken after ferrovanadium inoculation, and the carbides are changed to rod-like or nodular shape. After heat treatment, the carbides in the inoculated HSS are spheroidized and distributed more uniformly in the matrix. The impact toughness of high speed steel with ferrovanadium inoculation is obviously improved. The action mechanism of ferrovanadium inoculation on the microstructure of the alloy is also discussed

Primary author: SHEIKHHOSSEINI, Adel (Behin Industrial Group)

Co-author: Mr VALEHI, Majid

Presenter: SHEIKHHOSSEINI, Adel (Behin Industrial Group)

Session Classification: Roll Technology & Maintenance

Track Classification: Rolling of long and flat product