

## Checker Plate Roll (HiCr-Iron)

### *Field of Application*

Mill Type	Position
Hot Strip Mill	Last Finishing Stands - Work Roll

### *Properties*

Hardness Range	60-70 ShC
Tensile Strength	> 700 MPa
Bending Strength	> 1000 MPa
Young's Modulus	approx. 225.000 MPa

This material, a special HiCr-Iron, is used as the top roll in the last stand of an HSM to produce a checker plate.

The hardness requirement - to ensure the notches can be machined - is adjusted by using a special heat treatment.

The microstructure of the high chromium cast iron consists of high amount of chromium carbides ( $M_7C_3$ ) embedded in a matrix of tempered martensite. This grade shows very good wear and oxidation resistance.

Due to the special structure of the Chromium carbides the alloy has superior mechanical strength and toughness in comparison to other carbide containing materials.

### **Product Highlights**

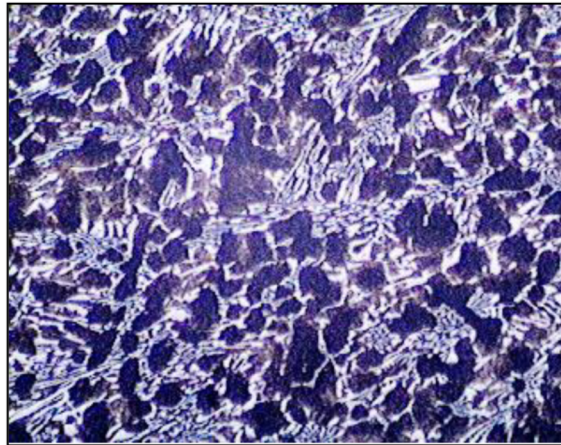
- Excellent wear resistance and oxidation resistance
- Constant material properties during service life



## Chemical Composition:

	C	Mn	Si	P	S	Ni	Cr	Mo	Nb + V + W
<b>Min</b>	2.50	0.50	0.20	0.000	0.000	1.00	10.50	0.40	0.00
<b>Max</b>	3.10	1.50	1.00	0.050	0.050	2.00	19.00	3.60	2.00

## Microstructure:



100 X – etched (Nital)

## Contact Us:

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