ROLL MATERIAL DATA SHEET

Core Material

GRADE

SG

01 FIELD OF APPLICATION

Mill Type	Position
Hot Strip Mill	All Stands
Narrow Strip Mill	All Stands
Steckel Mill	All Stands
Plate Mill	All Stands
Long Product Mill	Intermediate and Finishing Stands

02 MECHANICAL PROPERTIES

HARDNESS RANGE	TENSILE STRENGTH	BENDING STRENGTH	YOUNG'S MODULUS
35-45 ShC	> **400** MPa	> **700** MPa	approx. **170,000** MPa

Core material is typically cast iron with a high carbon content containing nodular shape free graphite. This type of core material exhibits sufficient strength and ductility to ensure a safe service life and avoid spalling or neck breakage in each application.

The microstructure consists of a pearlitic / ferritic matrix with minor traces of cementite (Fe_3C) and a nodular form of free Graphite.

PRODUCT HIGHLIGHTS

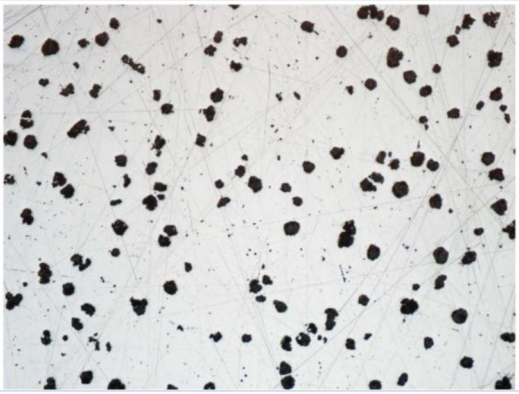
- Uniform material properties through-out the body of the roll.
- Low level of residual carbides after spin casting to ensure good operation safety.
- Adequate strength and toughness for the chosen application



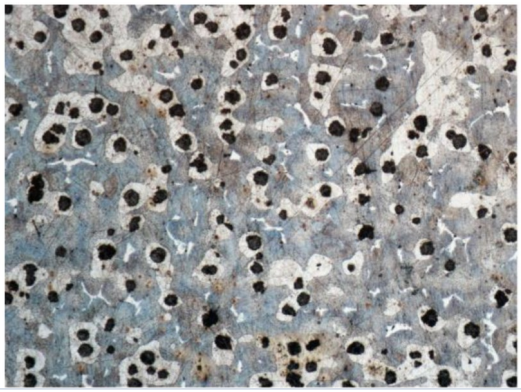
03 CHEMICAL COMPOSITION

wt. %	C	Mn	Si	P	S	Ni	Cr	Mo	Mg
Min	2.50	0.20	2.00	0.000	0.000	0.20	0.00	0.00	0.04
Max	3.50	1.00	3.00	0.100	0.020	0.80	0.60	0.50	0.08

04 MICROSTRUCTURE



■ *50 X – unetched*



■ *50 X – etched (Nital)*