

The Davy Roll Company Limited

Description

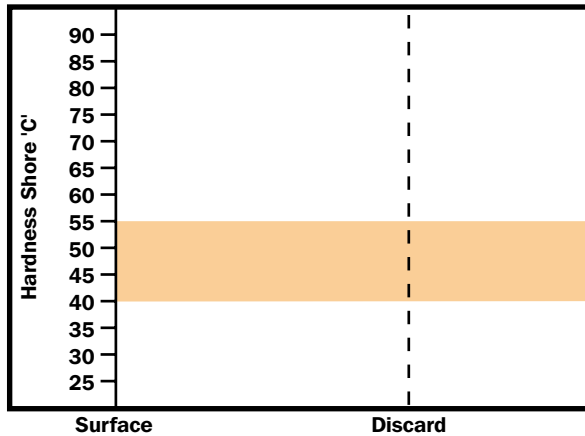
These are high alloy rolls which have been developed to meet the conditions in specific applications including backup rolls and vertical edging rolls.

The rolls are alloyed with manganese, chromium and molybdenum and are given a sophisticated multi-stage heat treatment to produce the combination of properties most appropriate for the mill duty.

The structure produced depends upon the hardness and the carbon content and varies from a fine pearlite to a very fine pearlite with some bainite. With the higher carbon rolls there will also be some free carbide present.

The high strength associated with good resistance to wear, spalling and firecracking make Special Alloy Cast Steel rolls very suitable for use in a range from backup rolls to early roughing work rolls.

Typical Hardness Gradient



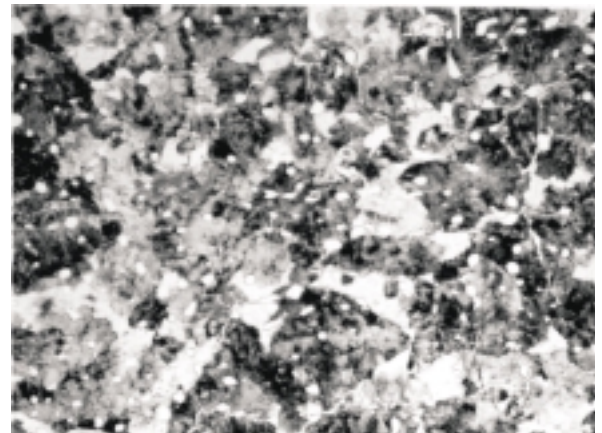
Applications

Product	Type of Mill	Position
Plate	4 High	Backup Rolls
Wide Strip	2 and 3 High	Roughing
Wide Strip	4 High Continuous	Backup Rolls
Wide Strip	4 High Continuous	Vertical Edgers
Wide Strip	4 High Continuous	Roughing and Early Finishing Work Roll
Tube	Pilger	

Typical Mechanical Properties

Property	N/mm ²	
	Low Carbon	High Carbon
Tensile Strength	980	690
Bending Strength	1375	1080

Micrograph x500



Typical Analysis

Code	Leeb E	Shore C	C	Si	Mn	Ni	Cr	Mo
AS4	525-565	40-46	0.7/0.8	0.3/0.8	0.8/1.4	0.5 max	1.3/1.9	0.2/0.6
AS5	540-575	42-48	0.8/1.0	0.3/0.8	0.8/1.4	0.5 max	1.3/1.9	0.2/0.6
AS6	550-590	44-50	1.0/1.2	0.3/0.8	0.8/1.4	0.5 max	1.3/1.9	0.2/0.6
AS7	565-600	46-52	1.2/1.4	0.3/0.8	0.8/1.4	0.5 max	1.3/1.9	0.2/0.6
AS8	575-620	48-55	1.4/1.6	0.3/0.8	0.8/1.4	0.5 max	1.3/1.9	0.2/0.6
BH4	555-590	45-50	0.6/1.0	0.3/0.8	0.5/1.3	1.0 max	1.5/2.5	0.2/0.5

