

## The Davy Roll Company Limited

### Description

Double Pour Nodular Iron rolls are an indefinite chill iron type of material, deriving good wear resistance from a combination of free carbide and a hard matrix.

Special inoculation and casting practices are employed to produce graphite nodules rather than flakes.

The superior wear resistance and excellent surface makes this material very suitable for applications such as temper mill backup rolls.

The rolls are double poured to produce the strong, tough journals and barrel axis necessary for good resistance to mechanical and thermal stresses.

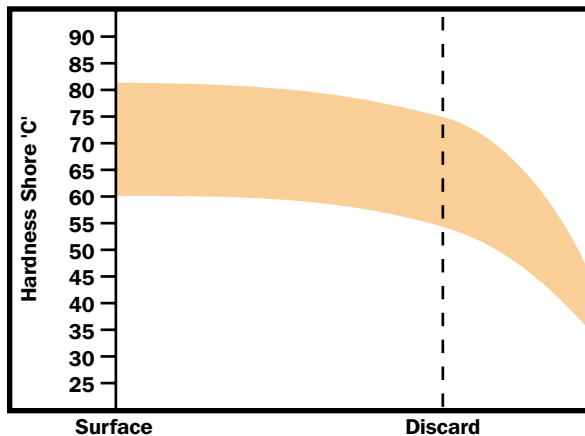
### Applications

Product	Type of Mill	Position
Plate	2 and 4 High	Work and Back Up Rolls
Wide Strip	2 and 4 High	Work and Back Up Rolls
Sheet and Coil	Temper	Back Up Rolls
Sheet and Coil	Double Reduction	Back Up Rolls
Sheet and Coil	2 High Skin Pass	Work Rolls

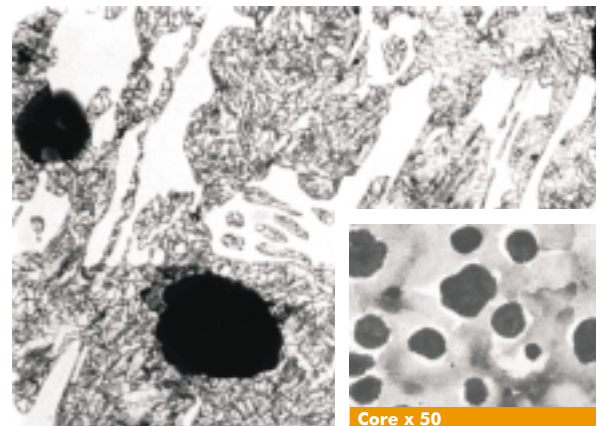
### Typical Mechanical Properties

Property	N/mm <sup>2</sup>	
	Shell	Core
Tensile Strength	560	425
Bending Strength	980	835

### Typical Hardness Gradient



### Micrograph (Shell x500)



### Typical Analysis

Code	Leeb E	Shore C	C	Si	Mn	Ni	Cr	Mo	Mg
DSX5	650-680	60-65	3.0/3.6	0.8/1.3	0.3/1.0	3.5/4.5	0.9/1.3	0.2/0.5	0.02/0.1
DSX6	680-710	65-70	3.0/3.6	0.8/1.3	0.5/1.5	3.5/4.5	1.0/1.5	0.2/0.5	0.02/0.1
DSX7	710-740	70-75	3.0/3.6	0.8/1.3	0.5/1.5	4.5/5.5	1.2/1.7	0.2/0.5	0.02/0.1
DSX8	725-755	73-78	3.0/3.6	0.6/1.0	0.5/1.5	4.5/5.5	1.2/1.7	0.3/0.6	0.02/0.1
DSX9	750-780	77-82	3.0/3.6	0.6/1.0	0.5/1.5	4.5/5.5	1.3/1.8	0.3/0.6	0.02/0.1

