

Description

Double poured indefinite chill produced by the horizontal spincasting process.

Unique customer applications require a specific range of material properties, which can be customized by means of controlled chemistry and heat treatment.

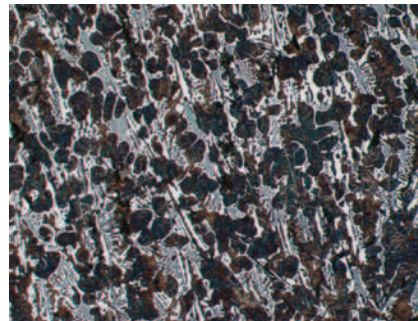
ICDP MECHANICAL PROPERTIES		
U.T.S. (ksi / MPa)	60-80	413-550
Compressive Yield (ksi / MPa)	190-250	1310-1725
Young's Modulus (ksi / MPa) x 1000	22-26	152-180
Thermal Conductivity (W/m-K / W/m-K)	28-36	28-36
Coeff. Thermal Expansion (in/in/°F / M/M/°C)	8.0-8.5 E-06	14.4-15.3 E-06

The overall wear and firecrack resistance provides a solid dependable workhorse in general mill applications.

CHEMICAL ANALYSIS		
		Low/High
C	(Carbon)	3.1/3.6
Si	(Silicon)	0.7/2.0
S	(Sulphur)	0.01/0.08
P	(Phosphorus)	0.04/1.0
Mn	(Manganese)	0.35/1.1
Cr	(Chromium)	1.3/1.8
Ni	(Nickel)	4.2/4.7
Mo	(Molybdenum)	0.2/0.8

Microstructure

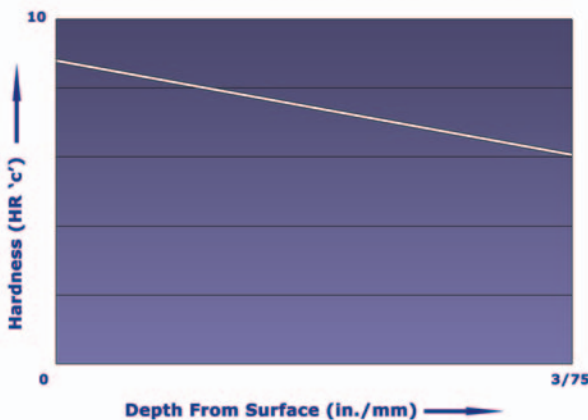
The microstructure consists of eutectic carbide and graphite in a tempered martensitic matrix.



ICDP Microstructure

HARDNESS RANGES			
	Equotip ('LD')	Shore ('c')	Rockwell ('c')
Low	720	68	50
High	800	85	60

**Hardness vs Depth
Indefinite Chill Double Poured**



Typical for Nodular Core

Applications

- Work Rolls for Plate Mills
- Work Rolls for Finishing Stands of Hot Strip Mills.
- Cold Mill Work Rolls (Early Stands)