

Ni-Hard 4 is a Nickel-Chromium white cast iron which provides consistent wear life in a variety of applications including slurry pumps, mill liners, pipe fittings, wear backs, log teeth, pulverizer parts and other wear resistant castings. Over fifty years of use in industrial applications has proven this alloy to be a cost effective solution to many wear problems.

By virtue of its alloy content, Ni-Hard in the mold-cooled condition possesses a matrix structure that is akin to heat treated white iron. It also contains a multitude of refined carbides which make an important contribution to its abrasion resistance. The high chromium level and near eutectic composition of Ni-Hard 4 results in very hard, discontinuous carbides of the $(Cr,Fe)_7C_3$ type with the advantage of a lower carbon, extremely tough, High-Nickel martensite matrix.

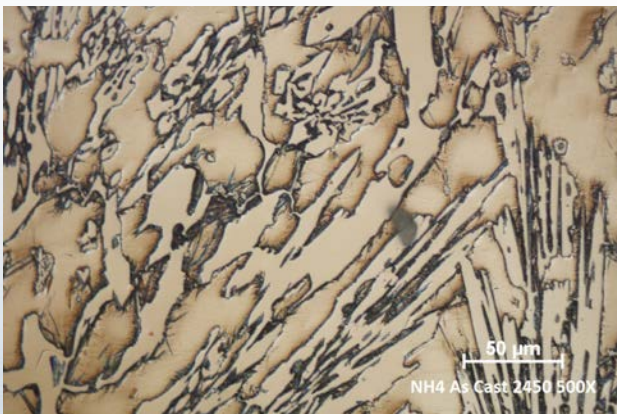
Mechanical Properties

Density	0.264 lbs/in ³
Brinell Hardness	
Tensile Strength	75 - 110 KSI
Izod Impact	35 - 45 ft-lb/in

Chemical Analysis

Carbon	2.5% - 3.6%
Manganese	2.0% MAX
Silicon	2.0% MAX
Chromium	7.0% - 11.0%
Nickel	5.0% - 7.0%
Phosphorus	0.10% MAX
Sulfur	0.15% MAX
Molybdenum	1.5% MAX

MICROSTRUCTURE: As Cast



MICROSTRUCTURE: Cryo Treated



Samples of each heat are analyzed prior to pouring to ensure exact chemical composition. Microstructural analyses are performed randomly and each casting is checked for proper hardness at several intervals during production.

TOWNLEY

Engineering & Manufacturing Co., Inc.

Made in the USA



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