

HC27 HIGH CHROME WHITE IRON

Closest ASTM / Specification A-532 - 75 a Class III Type A

HC27 is a modified High Chromium White Iron developed to provide the highest degree of toughness while retaining excellent abrasion resistance. This alloy is particularly suitable for applications involving abrasion and sudden impact such as large diameter dredge pump impellers.

The inoculated microstructure yields a very tough matrix with sufficient carbide volume to assure long service life. In addition a thermal process toughens the martensitic structure and adds to the impact strength of this alloy.

MICROSTRUCTURE



Mechanical Properties

Density	0.271 lbs/in ³
Brinell Hardness	550-650 min
Tensile Strength	82.5 KSI min
Max Bend Stress / Yield Strength	188 KPSI
Izod Impact	80 ft-lb/in min

Chemical Analysis

Carbon	1.6% - 2.4 %
Manganese	0.5% - 1.5%
Silicon	0.4% - 1.0%
Chromium	23.0% - 28.0%
Nickel	1.0% - 2.0%
Phosphorus	0.10% MAX
Sulfur	0.06% MAX
Molybdenum	1.0% MAX
Iron	Balance

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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