

**TOWNLEY**

Engineering &amp; Manufacturing Co., Inc.

**FOUNDRY****HC34**

Townley HC34 has reduced carbon level and increased overall alloy content to provide improved corrosion resistance. In particular, HC34 was developed for application in FGD/Absorber Recycle pumps in the coal fired power industry where PH fluctuations and fluoride/chloride levels are a concern.

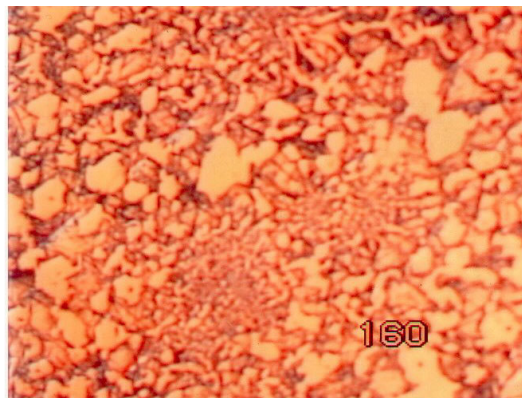
With increased chromium to carbon ratio, the matrix produced is predominately an alloy enriched austenite. This alloy rich matrix results in the improved corrosion resistance. Carbide volume is from 20-25% and mostly type  $C_R C_7$  to provide excellent abrasion resistance.

**CHEMICAL ANALYSIS**

Carbon	-	2.0 - 2.8
Manganese	-	2% Max
Silicon	-	1.5 Max
Chromium	-	28.0 – 33.5
Nickel	-	2.5 Max
Phosphorus	-	0.10 Max
Sulfur	-	0.06 Max
Molybdenum	-	1.0 – 3.0
Copper	-	1.2 Max
Iron	-	Balance

**MECHANICAL PROPERTIES**

Tensile Strength	80-110 KSI
Brinell Hardness	500-600
Izod AB Impact, ft. lb	70 Min
Density	.285 lb/in <sup>3</sup>
Charpy Impact Energy	120-130 ft. lb
Compression Yield Strength	90-150 PSI

**MICROSTRUCTURE**

Samples of each heat are analyzed prior to pouring to insure exact metal in the chemistry. Microstructural analysis are performed randomly and each casting is checked for proper hardness at several intervals.

**TOWNLEY FOUNDRY & MACHINE CO., INC.**  
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