## CD4MCu-N DUPLEX STAINLESS STEEL ASTM A-351 CF8M, Grade CD4MCu

Duplex Stainless Steel alloy with approximately equal volume fractions of austenite and ferrite. Corrosion resistance and yield strength superior to hardenable grades. Combines good ductility with high hardness. Highly resistant to stress corrosion cracking in chloride environments.

Mechanical Properties	
Density	0.282 lbs/in <sup>3</sup>
Brinell Hardness	220 - 280
Tensile Strength	105 KSI
Yield Strength	82 KSI
Elongation	25%
Charpy Impact Energy	55 ft-lb
Magnetic Permeability	Ferromagnetic

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Chemical Analysis	
Carbon	0.04% MAX
Manganese	1.0% MAX
Silicon	1.0% MAX
Chromium	24.5% - 26.5%
Nickel	4.75% - 6.0%
Phosphorus	0.04% MAX
Sulfur	0.04% MAX
Molybdenum	1.75% - 2.25%
Copper	2.75% - 3.25%
Nitrogen	0.15% - 0.25%

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.** 

