

Inweld Naval Bronze

AWS A5.27 RBCuZn-A

Chemical Composition of Naval Bronze

Fe	C	Cr	Zn	Other	Mn	Si	Pb	Sn	N	Cu
---	0.01	---	Balance	0.50	---	---	0.05	0.25- 1.00	---	57.0- 61.0

Single values are maximum unless otherwise specified.

Description and Applications

Inweld Naval bronze is commonly called Naval Brass. Many years ago this alloy was known as "Tobin Bronze". It contains 1% Tin (Sn) which improves the strength and corrosion resistance of the weld deposit. Inweld Naval Bronze is used in brazing applications for the oxyfuel gas welding (oxyacetylene) process on steel, cast iron, malleable iron, copper-bronze and nickel alloys. It is often used on ship or boat repairs for its ease of use and color match. TIG welding can be done but in most cases Naval Bronze is not used with the process. When brazing with Naval Bronze, the joint clearance should be 0.002" to 0.005" wide. Use a boric acid or borax commercial flux before and during brazing or welding. Preheating may be desirable for some applications. A neutral or slightly oxidizing flame should be used.

Typical Weld Metal Properties

	<u>AWS Spec</u>
Average As-Welded Brinell Hardness:	70-90
Tensile Strength:	50,000 psi
Yield Strength:	
Elongation:	
Charpy V-Notch at -20°F:	

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