



Manufacturers of Custom Welding Lines for Resale  
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**SELECTRODE**  
**6082**  
**Inconel 82 TIG**

**INTERNATIONAL CLASSIFICATIONS**

**ANSI/AWS A5.14 ERNiCr-3      ASME SFA 5.14   ERNiCr-3**

**FEATURES & APPLICATIONS**

6082 is a nickel -chromium-iron filler metal used for TIG welding of nickel base Inconel® 600, 601 and 690 as well as Incoloy® 330, 800 and 800 HT to themselves or to carbon steel, stainless steel, high nickel base 200 and to nickel-copper Monel® 400. 6082 can also be used for joining high nickel base 200 to stainless steel, nickel-copper Monel® 400 to carbon steel and for overlaying on steel. Used for welding of ASTM B163, B166, B167 and also B168 having UNS N06600.

**AWS CHEMISTRY REQUIREMENTS**

C	Mn	Fe	P	S	Si	Cu	Ni+Co
.10 Max	2.5 – 3.5	3.0 Max	.03 Max	.015 Max	.50 Max	.50 Max	67 Min.

Nb(Cb)+Ta	Co	Cr	Ti
2.0 – 3.0	.12 Max If Specified	18.0-22.0	.75 Max

**TYPICAL MECHANICAL PROPERTIES**

<b>Undiluted Weld Metal</b>	<b>Maximum Value Up to:</b>
Tensile Strength	80,000 psi
Yield Strength	40,000 psi
Elongation	30%

**WELDING PROCEDURES**

**Typical GTAW (TIG) Welding Procedures:** DCEN with EWTh-2 truncated conical tip

Filler Wire Size	Tungsten	Amps	Volts	Gas Cup Size	Argon (cfh)	Base Thickness
1/16"	1/16"	80-150	12	1/2"	20	1/16"-1/8"
3/32"	3/32"	150-250	12	3/4"	25	1/8"-3/16"
1/8"	1/8"	200-375	12	5/8"	30	1/4"-1/2"

Procedures may vary with change in position, base metals, filler metals, equipment and other changes.

**AVAILABLE SIZES:** TN 82/ = Cut lengths of 030, 035, 045, 1/16, 3/32, 1/8, 5/32  
Other sizes available – please inquire