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7122
Inconel 82 MIG

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 MIG, submerged arc and plasma arc 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

| Undiluted Weld Metal | Maximum Value Up to: |
|-----------------------------|-----------------------------|
| Tensile Strength | 80,000 psi |
| Yield Strength | 40,000 psi |
| Elongation | 30% |

WELDING PROCEDURES

Typical GMAW (MIG) Welding Procedures: DCEP Spray Arc

| Wire Diameter | Wire Speed (ipm) | Amps | Volts | Electric Stick-Out | Argon (cfh) |
|---------------|------------------|---------|-------|--------------------|-------------|
| .030" | 550-750 | 175-250 | 26-32 | 3/8" – 1/2" | 30-40 |
| .035 | 425-575 | 175-300 | 26-32 | 3/8" – 1/2" | 30-40 |
| .045 | 250-350 | 200-310 | 26-32 | 3/8" – 1/2" | 30-40 |
| .062 | 125-200 | 250-330 | 27-33 | 1/2" – 5/8" | 30-40 |

Typical GMAW (MIG) Welding Procedures: DCEP Short Circuit

| Wire Diameter | Wire Speed (ipm) | Amps | Volts | Electric Stick-Out | (cfh) 75Ar/ 25He |
|---------------|------------------|---------|-------|--------------------|---------------------|
| .035 | 150-200 | 90-110 | 19-21 | 3/8" – 1/2" | 35-45 |
| .045 | 175-225 | 100-140 | 22-24 | 3/8" – 1/2" | 40-50 |

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

AVAILABLE SIZES: TN 82 = Spools of 030, 035, 045, 1/16
Other sizes available – please inquire