



Quality Management System
in accordance with
ISO 9001:2000
Cert # 05-R0925

4130 Chrome-Moly Metal-Cored Wire

U.S. ALLOY CO.
dba Washington Alloy
7010-G Reames Rd.
Charlotte, NC 28216
www.weldingwire.com



ALLOY DESCRIPTION AND APPLICATION:

4130MC is a metal cored wire designed for welding and build up on mild & low alloy steels having a smooth stable arc transfer, spatter free, excellent bead contour, with a high deposition rate and nearly free of slag weld bead. This wire is formulated to weld flat and horizontal which has deoxidizers that helps where mill scale may be present. This metal cored wire is typical used on dies, forgings, castings and other base metals where heat treating is required.

TYPICAL METAL CORED WELDING PROCEDURES; DCEP

| Wire Diameter | Wire Speed (ipm) | Amps | Volts | Electrical Stickout | Gas ⁽¹⁾ (cfh) |
|---------------|------------------|---------|-------|---------------------|--------------------------|
| 0.035 | 300-650 | 160-315 | 26-34 | 3/8-3/4" | 35-40 |
| 0.045 | 200-550 | 150-325 | 24-31 | 1/2-1" | 35-45 |
| 0.052 | 200-575 | 200-440 | 23-33 | 1/2-1" | 40-50 |
| 1/16" | 150-470 | 210-480 | 26-35 | 1/2-1.25" | 40-50 |

Procedures may vary with change in position, base metals, filler metals, equipment and other changes. ⁽¹⁾100 % CO₂ or 75% Ar/25% CO₂

TYPICAL WELD METAL CHEMISTRY (%) AND WELD METAL PROPERTIES;

| U.S. ALLOY 4130MC | | BASED ON 100% CO ₂ Typical (Stress Relieved) ⁽²⁾ | |
|-------------------|-------|---|-----------|
| Carbon | 0.21 | Tensile Strength (psi) | 135,000 |
| Manganese | 1.18 | Yield Strength (psi) | 129,000 |
| Silicon | 0.32 | Elongation in 2" | 18 % |
| Phosphorus | 0.010 | Charpy V-notch at 72°F | 82 ft-lbs |
| Sulfur | 0.011 | PWHT : fully annealed, welded, postweld re-heat | |
| Chromium | 0.45 | oil quenched at 1600° F & tempered 1150° F | |
| Nickel | 1.18 | Hardness as welded 34-38 may be hardenable to 52 | |
| Moly | 0.21 | | |

AVAILABLE SIZES: TU 4130MC= Spools of .045

Other sizes may be available – please inquire

SPECIFICATIONS: INTERNAL



11-2006 DC

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