

WELDING MATERIAL SALES

Technical Information

ER4130

ER4130 is a high strength, low alloy welding wire for joining steels of similar chemical composition, as well as for overlays where moderate hardness is required. This wire can be used for TIG, MIG, and submerged arc welding applications. A preheat and inter-pass temperature of not less than 400°F is required during welding.

ER4130
NO AWS CLASS

TYPICAL MECHANICAL PROPERTIES

For weld metal oil quenched from 1550°F and tempered at 1050°F

| | |
|-------------------------------|-------------------------|
| Tensile Strength (psi) | 145,000 psi (1,000 MPa) |
| Yield Strength (psi) | 130,000 psi (900 MPa) |
| Percent Elongation | 11% |

| C | Cr | Fe | Mn | Mo | Si |
|------|------|---------|------|-----|------|
| 0.31 | 0.93 | Balance | 0.52 | 0.2 | 0.28 |

| Diameter | Process | Amps | Volts | Shielding Gas |
|----------|--------------------------------|---------|-------|---|
| .035" | GTAW | 50-70 | 10-12 | 100% Ar |
| .045" | GTAW | 70-100 | 10-12 | 100% Ar |
| 1/16" | GTAW | 100-125 | 12-15 | 100% Ar |
| 3/32" | GTAW | 125-175 | 15-20 | 100% Ar |
| 1/8" | GTAW | 175-250 | 15-20 | 100% Ar |
| .035" | GMAW Spray Transfer | 165-200 | 28-32 | 80-85% Ar/Bal CO ₂ or 95-98% Ar/Bal O ₂ |
| .045" | GMAW Spray Transfer | 180-220 | 30-34 | 80-85% Ar/Bal CO ₂ or 95-98% Ar/Bal O ₂ |
| 1/16" | GMAW Spray Transfer | 230-260 | 30-34 | 80-85% Ar/Bal CO ₂ or 95-98% Ar/Bal O ₂ |
| .035" | GMAW-Short Circuiting Transfer | 100-140 | 22-25 | 100% CO ₂ * or 75% Ar/25% CO ₂ ** |
| .045" | GMAW-Short Circuiting Transfer | 120-150 | 23-26 | 100% CO ₂ * or 75% Ar/25% CO ₂ ** |

*With 100% CO₂ gas shielding, weld metal undergoes short circuit or globular transfer

** Only facilitates short circuit or globular transfer