

DESCRIPTION

Nicromang deposit is a typical 13 – 16% manganese steel alloy with additions of chromium and nickel to improve its weldability and physical properties. It is primarily used for build up, repair, and joining of manganese steels. Deposit thickness is unlimited. Nicromang can be flame cut without difficulty and it work hardens significantly under impact. Nicromang and SA Nicromang are interchangeable names for the same product. Nicromang-G is a gas shielded version of 1/16" diameter Nicromang wire.

TYPICAL DEPOSIT CHARACTERISTICS

| | | |
|--------------------------------|-------------------|------------|
| Hardness: | | |
| As Deposited | | 231 BHN |
| Work Hardened | | 42 HRC |
| Deposit Layers | | Multiple |
| Surface Cross Checks | | No |
| Machinability | | No |
| Magnetic | | No |
| Limit on Interpass Temperature | | 500EF Max. |
| Tensile Strength | 119 Ksi (820 MPa) | |
| Yield Strength | 89 Ksi (615 MPa) | |
| Elongation | | 21% |

ALLOY TYPE

Austenitic Manganese Steel

TYPICAL APPLICATIONS

- Manganese wear plates to dipper lip
- Rebuilding frogs and other track components
- Manganese steel crossings
- Impact breaker bars
- Trunnions
- Crusher rolls and jaws
- Crane wheels
- Frog heel extensions

OPERATIONAL CHARACTERISTICS / WELDING PARAMETERS

GMAW

| | |
|--------------------|-------------------|
| Diameter, In. (mm) | 1/16 (1.6) |
| Current, Amp. DCEP | 200 – 250 |
| Voltage | 23 – 27 |
| Position | Flat |
| Wire Extension | ½" – 1" |
| Shielding Gas | 100% Argon |

OPEN ARC

| | | |
|--------------------|-------------------------|-------------------|
| Diameter, In. (mm) | 1/16 (1.6) | 3/32 (2.4) |
| Current, Amp. DCEP | 200 – 250 | 200 – 300 |
| Voltage | 23 – 27 | 24 – 27 |
| Position | Flat | Flat |
| Wire Extension | ½" – 1" | ¾" – 1 ¼" |
| Shielding Gas | None or CO ₂ | None |

| | |
|--------------------|-------------------|
| Diameter, In. (mm) | 7/64 (2.8) |
| Current, Amp. DCEP | 275 – 375 |
| Voltage | 25 – 28 |
| Position | Flat |
| Wire Extension | ¾" – 1 ¼" |
| Shielding Gas | None |

STANDARD SIZES & PACKAGING

GMAW

| Diameter | Packaging | Part # |
|----------------|-----------------|----------|
| 1/16" (1.6 mm) | 33# Wire Basket | 11608700 |

OPEN ARC

| Diameter | Packaging | Part # |
|----------------|------------------|----------|
| 1/16" (1.6 mm) | 33# Wire Basket | 62800460 |
| | 50# Poly Pak | 62800455 |
| 3/32" (2.4 mm) | 50# Poly Pak | 62800665 |
| 7/64" (2.8 mm) | 110# Quarter Pak | 11867900 |
| | 60# Coil | 62800755 |

Stoody Company

5557 Nashville Road • Bowling Green, KY 42101
1-800-227-9333

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