

MIDALLOY NI-MAX 117 COATED ELECTRODE

CLASSIFICATION

- AWS/SFA 5.11 Class ENiCrCoMo-1/ASME SFA 5.11 Class ENiCrCoMo-1 ASME SEC IX, F43

DESCRIPTION

- Midalloy NI-MAX117 coated electrode is an all-position, coated electrode used for joining UNS number NO6617 alloys to themselves.
- UNS# W86117
- ISO 14172 comparison classification ENi6117

APPLICATION

- Midalloy NI-MAX 117 is used for joining nickel-chromium, cobalt, molybdenum alloys (UNS NO6617) to themselves
- Midalloy NI-MAX 117 is used for overlay cladding when nickel-chromium, cobalt, molybdenum alloys are required.
- Because weld metal provides optimum strength and oxidation resistance above 1500°F and up to 2100°F, especially on base materials of nickel, iron, chromium alloys, it is often used for these applications.
- NI-MAX 117 can also be used on dissimilar materials for high temperature applications.

TYPICAL CHEMISTRY

| C | Mn | Fe | P | S | Si | Cu | Ni | Co | Cr | Mo | Al | Ti |
|------|-----|-----|------|------|-----|-----|------|------|------|-----|-----|-----|
| .065 | .80 | 2.0 | .012 | .005 | .30 | .05 | 52.5 | 11.5 | 23.5 | 8.8 | .60 | .10 |

TYPICAL MECHANICAL PROPERTIES

| | |
|------------------|-------------|
| Tensile Strength | 110,000 PSI |
| Yield Strength | 87,000 PSI |
| Elongation | 26% |

RECOMMENDED WELDING PARAMETERS

| Diameter | 3/32" | 1/8" | 5/32" | 3/16" |
|----------------------------|-------|--------|---------|---------|
| Process | SMAW | SMAW | SMAW | SMAW |
| Voltage | 24-28 | 26-30 | 28-32 | 28-32 |
| Amperage Flat | 70-85 | 65-100 | 110-140 | 120-160 |
| Amperage Vertical/Overhead | 65-75 | 65-90 | 100-120 | 110-130 |

STANDARD PACKAGING

- 3/32" – 8 lb. Can, 48 lb. Carton
- 1/8", 5/32", 3/16" – 10 lb. Can, 60 lb. Carton

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