

DESCRIPTION

Executive 347/347H provides superior weldability, low spatter and smooth beads with easy slag removal. Provides good corrosion resistance and high strength at high temperature due to its additional Nb content. Tantalum and niobium are almost equally effective in stabilizing carbon and in providing high-temperature strength. This specification recognizes the usual commercial practice of reporting niobium as the sum of niobium plus tantalum. If dilution by the base metal produces a low-ferrite or fully austenitic weld metal deposit, crack sensitivity of the weld may increase substantially.

Some applications, especially those involving high temperature service, are adversely affected if the ferrite content is too high. Consequently, a high ferrite content should not be specified unless tests prove it to be absolutely necessary.

APPLICATIONS & FEATURES

Used for welding chromium nickel alloys of similar compositions stabilized either with niobium or titanium. Although niobium is the stabilizing element usually specified in Type 347 alloys, it should be recognized that tantalum also is present.

Suitable for welding heat resistant steel and stainless steel castings.

TYPICAL WIRE CHEMISTRY & MECHANICAL PROPERTIES

| C | Si | Mn | P | S | Cr | Ni | Mo | Cu | Nb+Ta | N |
|-------|------|------|-------|-------|-------|------|------|------|-------|-------|
| 0.045 | 0.78 | 1.47 | 0.039 | 0.006 | 19.93 | 9.57 | 0.07 | 0.10 | 0.678 | 0.076 |

| | | | | | |
|--------------------------|----------------|------------------------|----------------|--------------------|-----|
| Tensile Strength: | 85,600 PSI min | Yield Strength: | 60,900 PSI min | Elongation: | 42% |
|--------------------------|----------------|------------------------|----------------|--------------------|-----|

TYPICAL WELDING PARAMETERS

| Process | Diameter | Length | Amperage |
|--------------|----------|--------|----------|
| SMAW | 3/32" | 12" | 40-70 |
| AC/DC | 1/8" | 14" | 60-100 |
| | 5/32" | 14" | 90-140 |
| | 3/16" | 14" | 120-185 |

STANDARD PACKAGING & HANDLING

| | |
|-------------|--------------------|
| SMAW | 40-lb master box |
| | 10-lb plastic tube |

CLASSIFICATION

AWS/SFA 5.4, Class **E347-16**

