# EXECUTIVE 67

**NICKEL ALLOY**

SOLID WIRE TECHNICAL DATA SHEET

## DESCRIPTION

Executive 67 is a copper-nickel alloy designed for welding Monel® 450 and other copper-nickel alloys using TIG, MIG and SAW welding processes. The high alloy content of Executive 67 produces a weld material with good hot and cold ductility along with excellent corrosion resistance in sea water.

Executive 67 filler metal is produced using high quality raw materials and tightly controlled chemistry to provide top quality, exceptionally clean wires that deliver the results fabricators demand.

## APPLICATIONS & FEATURES

Executive 67 filler metal is used for welding Monel® 450 and most other copper-nickel alloys. It is also well suited for dissimilar joints including copper-nickel alloys to Nickel 200 or nickel-copper alloys.
Executive 67 is widely used for desalination plant components and parts in sea water service.

This wire is also suitable for laser welding and WAAM applications (Wire Arc Additive Manufacturing, aka Metal 3D printing).

## TYPICAL WIRE CHEMISTRY & MECHANICAL PROPERTIES

| Ni + Co | C | Mn | Fe | P | S | Si | Cu | Ti |
|---|---|---|---|---|---|---|---|---|
| 31.5 | 0.01 | 0.76 | 0.58 | 0.007 | 0.001 | 0.10 | 67.00 | 0.31 |

**Tensile Strength:** 53,000 PSI Min **Yield Strength:** 21,000 PSI Min **Elongation:** 32%

## TYPICAL WELDING PARAMETERS

| Process | Diameter | Voltage | Amperage | Gas Flow | Shielding Gas / Flux |
|---|---|---|---|---|---|
| **GMAW** - Short | .035" | 17-20 | 70-90 | 30 to 50 CFH | 100% Ar<br>75% Ar / 25% He<br>90% He / 7.5% Ar / 2.5% $CO_2$ |
| | .045" | 19-22 | 75-160 | | |
| - Spray | .045" | 30-32 | 190-250 | | |
| - Pulse | .045" | 18-20 | 120-150 | | |
| **GTAW** | .093"<br>.125"<br>.156" | Direct Current; Electrode - | | 30 to 40 CFH | 100% Ar |
| **SAW** | .093" | 28-33 | 275-350 | | CuNi-W Flux |

## STANDARD PACKAGING

| | | |
|---|---|---|
| **GMAW** (MIG) | 33-lb wire baskets | 500-lb Drum |
| **GTAW** (TIG) | 10-lb plastic tube | 40-lb box |
| **SAW** | 60-lb wire coil<br>60-lb Acro Pak | |


## CLASSIFICATION

AWS/SFA 5.7, Class **ERCuNi**