

## Ni-Cu Filler Metal

### MONEL<sup>®</sup> Filler Metal 60

**MONEL Filler Metal 60** is used for gas-tungsten-arc, gas-metal-arc, and submerged-arc welding of MONEL alloys 400, R404, and K-500. It is also used for surfacing of steel by the gas-metal-arc or submerged-arc processes. For certain gas-metal-arc conditions, a barrier layer of Nickel Filler Metal 61 is recommended.

Weld metal deposited by MONEL Filler Metal 60 has properties similar to those of MONEL alloy 400. It has good strength and resists corrosion in many media, including sea water, salts, and reducing acids. The weld metal is not age hardenable and when used to join MONEL alloy K-500 has lower strength than the base metal.

#### Specifications

AWS A5.14 ERNiCu-7 (UNS N04060)  
ASME II, Part C, SFA-5.14, ERNiCu-7 (UNS N04060)  
ASME IX, F-No.42  
\*BS 2901 (NA33)  
\*DIN 1736 SG-NiCu30MnTi (2.4377)  
\*(EN) ISO 18274 - SNi4060 (NiCu30Mn3Ti)  
\*Supply to these specifications available upon request  
For manufacture to ASME III (NCA3800, NB2400), MIL and other specifications please refer your inquiry to the Technical Department prior to order placement.

#### Approvals

VdTUV 2114.01; 2165.01  
Other approvals may be applicable. Please confirm details of current scope of approvals with the Technical Department prior to order placement.

| Limiting<br>Chemical<br>Composition | Ni+Co..... 62.0-69.0 |              | Cu ..... Remainder |           |
|-------------------------------------|----------------------|--------------|--------------------|-----------|
|                                     | C.....               | 0.15 max.    | Al .....           | 1.25 max. |
| Mn.....                             | 4.0 max.             | Ti .....     | 1.5-3.0            |           |
| Fe.....                             | 2.5 max.             | P.....       | 0.020 max.         |           |
| S .....                             | 0.015 max.           | Others ..... | 0.50 max.          |           |
| Si .....                            | 1.25 max.            |              |                    |           |

| Minimum<br>Mechanical<br>Properties | Tensile Strength, psi |     | 70,000 |
|-------------------------------------|-----------------------|-----|--------|
|                                     |                       | MPa | 483    |
|                                     | Elongation, (4d) %    | 30  |        |

Filler metals available on spool and in cut straight lengths in a variety of sizes selected from the following diameters:

#### Available Product Forms

| mm | 0.8   | 0.9   | 1.0   | 1.14  | 1.2   | 1.6   | 2.4   | 3.2   |
|----|-------|-------|-------|-------|-------|-------|-------|-------|
| in | 0.030 | 0.035 | 0.040 | 0.045 | 0.047 | 0.062 | 0.093 | 0.125 |

Straight Lengths - 915 mm (36 in.) or 1000 mm (39 in.)

| Rod Diam. | 4.54 kg Tube |
|-----------|--------------|
| 1.6mm     | SMTMONEL6016 |
| 2.4mm     | SMTMONEL6024 |

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