

ENiCu-7 Welding Electrode

For Welding Alloys 400, R-405, and K-500

ENiCu-7 is designed for shielded metal arc welding of nickel-copper alloys such as Alloy 400, R-405, and K-500. It can also be used for surfacing applications on steel.

The deposited weld metal provides excellent resistance to seawater, salt environments, and reducing acids, making it suitable for marine and chemical service conditions. It is capable of producing high-quality welds that meet strict radiographic inspection requirements.

While sound welds can be achieved on Alloy K-500, the weld metal does not exhibit the same strength as the base material due to the absence of age-hardening characteristics.

This electrode is also suitable for dissimilar welding between nickel-copper alloys and materials such as carbon steel, low-alloy steels, copper, and copper-nickel alloys.

Specification

AWS A5.11 ENiCu-7 (UNS W84190)

ASME II, Part C, SF A-5.11, ENiCu-7 (UNS W84190)

ASME IX, F-No.42

*DIN 1736 EL-NiCu30Mn (2.4366)

*(EN) ISO 14172 – ENi4060 (NiCu30Mn3Ti)

Custom specifications available upon request.

For information regarding certifications and industry approvals, please contact our Technical Department.

Limiting Chemical Composition

Element	Ni+Co	C	Mn	Fe	S	Si	Cu	Al	Ti	P	Others
Content(%)	62.0-68.0	0.15 max	4.0 max	2.5 max	0.015 max	1.0 max	Remainder	0.75 max	1.0 max	0.02 max	0.50 max

Minimum Mechanical Properties

Property	Value
Tensile Strength, psi	70,000
MPa	483
Elongation, (4d) %	30

Available Product Forms – Supplied in 10lbs (4.54kg) hermetically sealed containers

	mm in	2.4 3/32	3.2 1/8	4.0 5/32	4.8 3/16
Diameter					
Length	mm in	305 12	356 14	356 14	356 14
Current (DC+)	A	55-75	75-110	110-150	150-190