ERNiFeCr-1 Filler Metal

For Welding Alloys 825 and Related Alloys

ERNiFeCr-1 filler metal is designed for gas-tungsten-arc (GTAW) welding of nickel-iron-chromium-molybdenum-copper alloys such as Alloy 825 and similar alloys. The weld metal provides excellent corrosion resistance, particularly in reducing chemical environments including sulfuric and phosphoric acids.

This filler metal is also suitable for overlaying carbon steels and low-alloy steels to produce corrosion-resistant surfaces, making it ideal for applications in chemical processing, power generation, and other corrosive environments.

Specification

AWS A5.14 ERNiFeCr-1 (UNS N08065)
ASME II, Part C, SFA-5.14, ERNiFeCr-1 (UNS N08065)
ASME IX, F-No.45
*BS 2901 NA41
*(EN) ISO 18274 – SNi8065 (NiFe30Cr21Mo3)
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
Content(%)	38.0-46.0	0.05 max	1.0 max	22.0 min	0.03 max	0.50 max	1.5-3.0
Element	Cr	Al	Ti	Mo	P	Others	
Content(%)	19.5-23.5	0.20 max	0.60-1.20	2.50-3.50	0.03 max	0.50 max	

Minimum Mechanical Properties

Property	Value
Tensile Strength, psi	80,000
MPa	552
Elongation, (4d) %	25

Available Product Forms

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

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