Welding Filler

ERNiCrMo-3

Description

ERNiCrMo-3 is a solid-solution strengthened nickel-based filler metal. It is the matching consumable for Alloy 625, engineered so the deposited weld metal reproduces Alloy 625's corrosion and mechanical properties.

Ordinary nickel weld deposits could not deliver equivalent resistance to chloride pitting, crevice corrosion and stress corrosion cracking when joining or cladding Alloy 625. It retains excellent corrosion performance in as-welded condition under chloride, sour gas and moderate elevated temperature loads, making it ideal for pressure vessel cladding, valve seat overlay, subsea piping and dissimilar metal transition joints.

Grade: UNS N06625, Inconel®625

Chemical Composition (wt%)

Ni	Cr	Nb+Ta	Fe	C	Si	Cu	Mn	P	S	Al	Ti	Mo	Rest
⩾58.0	20.0–23.0	3.15–4.15	⩽5.0	⩽0.10	⩽0.50	⩽0.50	⩽0.50	⩽0.020	⩽0.015	⩽0.4	⩽0.4	8.0-10.0	⩽0.50

Disclaimer: Data is typical for reference only.

sales@ecalloys.com

Technical standards

Technical Standards
AWS A5.14 / A5.14M
AWS A5.11 / A5.11M
ASME SFA-5.14
ASME SFA-5.11
ISO 18274
ISO 14172

Mechanical Properties

Property	As-Welded (Typical)	AWS A5.14 (As-Welded)
Ultimate Tensile Strength	780 MPa	⩾760 MPa
0.2% Offset Yield Strength	440 MPa	Not specified
Elongation (4×d)	40%	Not specified
Hardness	220–250 HV	Not specified