

Hastelloy B-2 Welding Wire (UNS N10665 / W.Nr. 2.4617) — Technical Data Sheet

ERNiMo-7 bare wire to AWS A5.14 (UNS N10665) and ENiMo-7 covered electrodes to AWS A5.11 for joining UNS N10665 — all-weld-metal results are published as typical ranges rather than as AWS minimums, and severe acid duty still calls for a post-weld solution anneal at 1050–1100 °C followed by a water quench.

Chemical Composition — Filler base-metal reference (the deposit is certified to AWS A5.14 / A5.11)

Element	Content
Nickel (Ni)	Balance
Molybdenum (Mo)	26.0–30.0%
Iron (Fe)	2.0% max.
Chromium (Cr)	1.0% max.
Cobalt (Co)	1.00% max.
Manganese (Mn)	1.0% max.
Carbon (C)	0.02% max.
Silicon (Si)	0.10% max.
Phosphorus (P)	0.04% max.
Sulfur (S)	0.03% max.

All-Weld Metal Mechanical Results (typical, AWS classifications)

Product (all-weld metal)	AWS Class	Tensile Strength	Elongation
ERNiMo-7 bare wire	AWS A5.14, UNS N10665	690–760 MPa (100–110 ksi), typical	20–30%, typical
ENiMo-7 covered electrode	AWS A5.11	690 MPa (100 ksi) and above, typical	20% and above, typical

Filler Metal Classifications

Product	AWS Class	Chemistry Basis	Typical Strength	Best Suited For
Bare wire	ERNiMo-7 (A5.14)	Deposits the parent window: Ni balance, Mo 26.0–30.0%, Cr 1.0% max., Fe 2.0% max.	690–760 MPa (100–110 ksi) typical	GTAW primary, GMAW general
Covered electrode	ENiMo-7 (A5.11)	Deposits the same Ni-Mo analysis under a basic covering	690 MPa (100 ksi) and above, typical	SMAW repair and build-up

Filler Metal Identification (ERNiMo-7 / ENiMo-7)

Property	Value
Parent Metal	UNS N10665, 2.4617 / NiMo28
Bare Filler	ERNiMo-7 (AWS A5.14)
Covered Electrode	ENiMo-7 (AWS A5.11)
Molybdenum	26.0–30.0% in the parent metal
Chromium	1.0% max. in the parent metal
Carbon	0.02% max. in the parent metal
Nickel	Balance in the parent metal
Strengthening Route	Cold work only, because the grade does not respond to aging

Standards and Designations

Standard	Product or Application
AWS A5.14	ERNiMo-7 bare filler wire, UNS N10665
AWS A5.11	ENiMo-7 covered electrode
ASME SFA-5.14	ASME version of the bare filler specification

Surface Finishes (Welding Wire)

Surface Condition	Typical Use
Clean Bright	The standard surface for bare ERNiMo-7 welding wire, free of drawing lubricant.
Straight Rods	Cut TIG rods of this welding wire with clean, deburred ends.
Coated	A light carrier film on this welding wire that protects it through storage and handling.

Typical Supply Dimensions — Welding Wire

Product Form	Typical Supply	Length
ERNiMo-7 Bare Wire	0.8–4.0 mm dia.	Spools, coils or cut lengths
ENiMo-7 Covered Electrode	2.4–4.0 mm dia.	Sealed packs
TIG Cut Lengths	1.6–4.0 mm dia.	914 mm standard
MIG Spools	0.8–1.6 mm dia.	15 kg spool
Coils and Reels	0.8–1.6 mm dia.	To order
Custom Packing	To order	Custom

Values are for reference; the mill test certificate prevails for final acceptance. Designations, heat-treatment conditions, and surface finishes are confirmed at quotation.
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