

Hastelloy C-276 Welding Wire (UNS N10276 / W.Nr. 2.4819) — Technical Data Sheet

ERNiCrMo-4 bare wire to AWS A5.14 (UNS N10276) and ENiCrMo-4 covered electrodes to AWS A5.11 (UNS W80276) for joining UNS N10276 — AWS sets no tensile minimum for the bare class, while the electrode carries a 690 MPa floor with 25% elongation; neither class needs a post-weld heat treatment.

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

Element	Content
Nickel (Ni)	57.0% min. (balance)
Molybdenum (Mo)	15.0–17.0%
Chromium (Cr)	14.5–16.5%
Tungsten (W)	3.0–4.5%
Iron (Fe)	4.0–7.0%
Cobalt (Co)	2.50% max.
Manganese (Mn)	1.00% max.
Vanadium (V)	0.35% max.
Silicon (Si)	0.08% max.
Carbon (C)	0.010% max.
Phosphorus (P)	0.040% max.
Sulphur (S)	0.030% max.

Filler Mechanical Minimums (AWS classifications)

Product (all-weld metal)	AWS Class	Tensile Strength	Elongation
ERNiCrMo-4 bare wire	AWS A5.14, UNS N10276	758–786 MPa (110–114 ksi), typical	39–57%, typical
ENiCrMo-4 covered electrode	AWS A5.11, UNS W80276	≥690 MPa (100 ksi), min.	25%, min.

Filler Metal Classifications

Product	AWS Class	Key Composition	Typical Strength	Best Suited For
Bare wire	ERNiCrMo-4 (A5.14) / S Ni 6276	Ni balance, Cr 14.5–16.5%, Mo 15.0–17.0%, W 3.0–4.5%, C 0.02% max.	758–786 MPa (110–114 ksi) typical	GTAW primary, GMAW general
Covered electrode	ENiCrMo-4 (A5.11) / ENi 6276	Ni+Co remainder, Cr 14.5–16.5%, Mo 15.0–17.0%, W 3.0–4.5%, Si 0.20% max.	≥690 MPa (100 ksi) AWS min.	SMAW repair, dissimilar joints and overlays

Filler Metal Identification (ERNiCrMo-4 / ENiCrMo-4)

Property	Value
Filler Metal	ERNiCrMo-4 (AWS A5.14)
Covered Electrode	ENiCrMo-4 (AWS A5.11)
UNS	N10276 (bare) / W80276 (covered)
ISO Designation	S Ni 6276 (bare) / ENi 6276 (covered)
Other Designations	W.Nr. 2.4819 (bare) / DIN 1736 2.4887 (covered)
Chromium Window	14.5–16.5% in both forms
Molybdenum	15.0–17.0% in both forms
Tungsten	3.0–4.5% in both forms
Silicon Limit	0.08% max. (bare) / 0.20% max. (covered)
Nickel	Balance in both forms

Standards and Designations

Standard	Product or Application
AWS A5.14	ERNiCrMo-4 bare filler wire, UNS N10276
AWS A5.11	ENiCrMo-4 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 ERNiCrMo-4 welding wire, free of drawing lubricant.
Spool Wound	Layer-wound welding wire so the GMAW feeder runs without tangling.
Straight Rods	Cut TIG rods of this welding wire with clean, deburred ends.

Typical Supply Dimensions — Welding Wire

Product Form	Typical Supply	Length
TIG Filler Rod (GTAW)	1.6 / 2.4 / 3.2 mm × 1000 mm	5 kg tube
MIG Wire (GMAW)	0.9 / 1.2 mm	Spool
SAW Wire and Strip	2.5–4.0 mm dia.	Coil
Straight Cut Wire	0.8–3.2 mm dia.	Straight lengths
Covered Electrode (SMAW)	2.4 / 3.2 / 4.0 mm	Sealed pack
Custom Winding	To drawing	Custom

Values are for reference; the mill test certificate prevails for final acceptance. Designations, heat-treatment conditions, and surface finishes are confirmed at quotation.
Southerly Alloy — nickel alloy bar, rod, pipe, tube, plate, wire and fittings · www.southerly-alloy.com · Values are for reference; the mill test certificate prevails for final acceptance.
Document Control · Hastelloy C-276 Welding Wire Data Sheet · Rev. 1.0 · Issued 6 October 2026