

Hastelloy C-22 Welding Wire (UNS N06022 / W.Nr. 2.4602) — Technical Data Sheet

ERNiCrMo-10 bare wire to AWS A5.14 (UNS N06022) and ENiCrMo-10 covered electrodes to AWS A5.11 for joining UNS N06022 — 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)	Balance
Chromium (Cr)	20.0–22.5%
Molybdenum (Mo)	12.5–14.5%
Tungsten (W)	2.5–3.5%
Iron (Fe)	2.0–6.0%
Cobalt (Co)	2.50% max.
Manganese (Mn)	0.50% max.
Vanadium (V)	0.35% max.
Silicon (Si)	0.08% max.
Carbon (C)	0.015% max.
Phosphorus (P)	0.020% max.
Sulfur (S)	0.020% max.

Filler Mechanical Minimums (AWS classifications)

Product (all-weld metal)	AWS Class	Tensile Strength	Elongation
ERNiCrMo-10 bare wire	AWS A5.14, UNS N06022	690–790 MPa (100–115 ksi), typical	36–44%, typical
ENiCrMo-10 covered electrode	AWS A5.11	≥690 MPa (100 ksi), min.	25%, min.

Filler Metal Classifications

Product	AWS Class	Key Composition	Typical Strength	Best Suited For
Bare wire	ERNiCrMo-10 (A5.14) / S Ni 6022	Ni balance, Cr 20.0–22.5%, Mo 12.5–14.5%, W 2.5–3.5%, C 0.015% max.	690–790 MPa (100–115 ksi) typical	GTAW primary, GMAW general
Covered electrode	ENiCrMo-10 (A5.11) / E Ni 6022	Ni balance, Cr 20.0–22.5%, Mo 12.5–14.5%, W 2.5–3.5%, Si 0.20% max.	≥690 MPa (100 ksi) AWS min.	SMAW repair, dissimilar joints and overlays

Filler Metal Identification (ERNiCrMo-10 / ENiCrMo-10)

Property	Value
Filler Metal	ERNiCrMo-10 (AWS A5.14)
Covered Electrode	ENiCrMo-10 (AWS A5.11)
UNS	N06022 (bare wire)
ISO Designation	S Ni 6022 (bare) / E Ni 6022 (covered)
Trade Name	INCONEL Filler Metal 622
Chromium Window	20.0–22.5% in both forms
Molybdenum	12.5–14.5% in both forms
Tungsten	2.5–3.5% 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-10 bare filler wire, UNS N06022
AWS A5.11	ENiCrMo-10 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-10 welding wire, free of drawing lubricant.
Spool Wound	Layer-wound welding wire so the GMAW feeder runs without tangling.
Coated	A light carrier film on this welding wire that protects it during downstream redrawing.

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.
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