ERNiFeCr-2 Filler Metal

For Welding Alloys 718, 706, and X-750

ERNiFeCr-2 filler metal is designed for gas-tungsten-arc (GTAW) welding of nickel-iron-chromium alloys such as 718, 706, and X-750. The weld metal is age-hardenable, providing mechanical properties comparable to those of the base metals.

This filler metal is suitable for applications requiring high strength and durability at elevated temperatures, making it ideal for aerospace, power generation, and other high-performance engineering applications. resistance and reliability in demanding industrial and nuclear service conditions.

Specification

AWS A5.14 ERNiFeCr-2 (UNS N07718)
ASME II, Part C, SFA-5.14, ERNiFeCr-2 (UNS N07718)
*BS2901 NA 51
*DIN 1736 SG-NiCr19NbMoTi (2.4667)
*(EN) ISO 18274 – SNi7718 (NiFe19Cr19Nb5Mo3)
Custom specifications available upon request.
For information regarding certifications and industry approvals, please contact our Technical Department.

Limiting Chemical Composition

Element	Ni	C	Mn	Fe	S	Si
Content(%)	50.0-55.0	0.08 max	0.35 max	Remainder	0.015 max	0.35 max
Element	Cu	Cr	Al	Ti	Nb+Ta	Mo
Content(%)	0.30 max	17.0-21.0	0.20-0.80	0.65-1.15	4.75-5.50	2.80-3.30
Element	P	B	Co			
Content(%)	0.015 max	0.006 max	1.0 max			

Minimum Mechanical Properties

Property	Value
Tensile Strength, psi	165,000
MPa	1138

(Age hardened condition: 1325°F (720°C)/8 hours, Furnace Cool 100°F (55°C)/hour to 1150°F (620°C)/8 hours, Air Cool)

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.)