



MW-718 (ERNiFeCr-2)

Comparable specifications

ASME SFA A 5.14: ERNiFeCr-2 (UNS N07718)

EN ISO 18274: Ni 7718 - NiCr19Fe19Nb5Mo3

Werkstoff Nr.: 2.4667

AMS: 5662, 5663, 5832, 5962

Description and applications*

* Illustrative, not-exhaustive list

MasterWeld MW-718 Nickel Alloy TIG Rod is a high-strength, age-hardenable nickel-chromium alloy filler metal designed for welding high-performance nickel alloys, including Alloy 718, 706 and X-750.

MW-718 combines excellent mechanical strength with high corrosion resistance and is suitable for demanding applications exposed to both cryogenic and elevated temperatures. The weld metal offers excellent creep-rupture strength across a wide operating temperature range, from approximately -250°C up to 700°C.

The addition of titanium, aluminium and niobium enables the deposited weld metal to be age hardened through appropriate heat treatment, producing high strength while providing excellent resistance to post-weld cracking.

MasterWeld MW-718 is particularly suited to critical fabrication and repair applications where strength, temperature resistance and long-term weld integrity are required.

Weldable base materials*

* Illustrative, not-exhaustive list

Nickel-chromium-niobium-molybdenum alloys, UNS N07718, nickel alloys 718, 750, 706.

All-weld metal mech.properties*

* For reference only values

Tensile strength (Rm): ≥ 1140 N/mm²

(age-hardened condition: heat treated at 718°C for 8 hours, then furnace cooled at 56°C per hour to 620°C and held for 8 hours, then air cooled)

Chemical composition*

* For reference only values

C	Mn	Si	S	P	Ni	Cr	Mo	Cu	Fe	Ti	Al	Nb+Ta	B
max	max	max	max	max	50.00	17.00	2.80	max	max	0.70	0.20	4.80	Max
0.08	0.30	0.30	0.015	0.015	55.00	21.00	3.30	0.30	24.00	1.10	0.80	5.50	0.006

