

Solid Wire Rod for TIG Welding

BA-TIG 82

Classification: EN ISO 18274: **S Ni 6082 (NiCr20Mn3Nb)**
SFA-5.14: **ERNiCr-3**

Main Application:

BA-TIG 82 is a Nickel base solid wire rod for GTAW. The weld metal has excellent mechanical properties with high hot cracking resistance, high strength and good corrosion resistance, including oxidation resistance and creep-rupture strength at high temperatures.

Typical analysis and chemical composition acc. to EN ISO 18274 and AWS A5.14:

(Weight Percent)

Wire rod	Ni	Si	C	Cr	Mn	Ti	Fe	Nb	S	P	Cu total	Others
Typical analysis BA-TIG 82	> 71.0	0.1	0.035	20.0	3.0	0.4	1.3	2.4	0.007	0.01	0.05	0.5
S Ni 6082 acc. to ISO 18274	> 67.0	0.5	0.10	18.0-22.0	2.5-3.5	0.7	3.0	2.0-3.0	0.015	0.02	0.5	0.5
ERNiCr-3 acc. to AWS A5.14	> 67.0	0.5	0.10	18.0-22.0	2.5-3.5	0.75	3.0	2.0-3.0	0.015	0.03	0.5	0.5

All - Weld Metal Mechanical Properties / Welding Data:

Heat Treatment	As Welded
Yield Strength Re, N/mm ² (ksi)	≥ 400 (58)
Tensile Strength Rm, N/mm ² (ksi)	≥ 640 (93)
Elongation A5 [%]	>30
Impact Energy ISO-V, J (ft lbs)	+20°C: ≥ 100 (74) -196°C: ≥ 35 (26)
Current/polarity	DC -
Shielding Gas	ISO 14175: I1

Base Materials:

Welding of INCONEL alloys 600, 601, 690, INCOLOY 800 and 800H and INCOLOY alloy 330, ASTM B 163, B 166, B 167 and B 168 having UNS number N06600.

Surfacing of mild steel. Dissimilar welding's of stainless steels to nickel alloys and carbon steels.

Package Forms:

5 kg carton boxes as standard package form for GTAW wire rods.

Diameter:

1,6 – 2,4 mm. Sizes and tolerances acc. to ISO 544 and AWS A5.14.

Wire Rod Surface:

Smooth finish free from surface defects and foreign matter.