

Solid Wire Rod for TIG Welding

BA-TIG 625

Classification: EN ISO 18274: **S Ni 6625 (NiCr22Mo9Nb)**
SFA-5.14: **ERNiCrMo-3**

Main Application:

BA-TIG 625 is a Nickel base solid wire rod for GTAW. Suitable for welding INCONEL alloy 625, INCOLOY alloy 825, INCOLOY alloy 25-6Mo, alloy 20, welding the clad side of joints in steel with nickel-chromium molybdenum alloys, cladding steel with nickel-chromium molybdenum weld metal, surfacing of mild steel and for dissimilar welding's of stainless steels to nickel alloys and carbon steels. The weld metal is high resistant to stress corrosion cracking and pitting. BA-TIG 625 is recommended for applications with operating temperature from cryogenic to +540 °C. In S-free atmosphere can be used up to +1200°C. Not recommended to use in the temperature range 600 - 850°C due to weld metal embrittlement.

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+ Ta	Al	Mo	S	P	Cu total	Others
Typical analysis BA-TIG 625	> 64.0	0.08	0.01	22.5	0.08	0.23	0.3	3.65	0.13	8.9	0.004	0.005	0.05	-
S Ni 6625 acc. to ISO 18274	> 58.0	0.5	0.10	20.0- 23.0	0.5	0.4	5.0	3.0- 4.2	0.4	8.0- 10.0	0.015	0.02	0.5	0.5
ERNiCrMo-3 acc. to AWS A5.14	> 58.0	0.5	0.10	20.0- 23.0	0.5	0.4	5.0	3.15- 4.15	0.4	8.0- 10.0	0.015	0.02	0.5	0.5

All - Weld Metal Mechanical Properties / Welding Data:

Heat Treatment	As Welded
Yield Strength Re, N/mm ² (ksi)	≥ 460 (67)
Tensile Strength Rm, N/mm ² (ksi)	≥ 760 (110)
Elongation A5 [%]	>30
Impact Energy ISO-V, J (ft lbs)	+20°C: ≥ 100 (74) -196°C: ≥ 47 (34)
Current/polarity	DC -
Shielding Gas	ISO 14175: I1

Base Materials:

Alloy 625, alloy 825, INCOLOY alloy 25-6Mo, alloy 20, 9% nickel steels, 2.4856, 2.4858, 2.4816, 1.4583, 1.4876, 1.4876, 1.4529, 2.4641, ASTM B 443, B 444, B 446 having UNS number N06625.

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.