

# Solid Wire Electrode for MIG/MAG Welding

# BA-TIG 430

**Classification:** EN ISO 14343-A: **W 17**  
SFA-5.9: **ER430**

## Main Application:

BA-TIG 430 is a solid wire rod for GTAW, suitable for welding ferritic and martensitic chromium steels with 15 -17%Cr, AISI 430. Also suitable for surfacing gas valves, water valves, steam valves and fittings. Service temperatures up to +450 °C. Scaling resistant up to +950 °C.

## Typical analysis and chemical composition acc. to EN ISO 14343-A and AWS A5.9: (Weight Percent)

Wire electrode	C	Si	Mn	Mo	Ni	Cr	P	S	Cu total
Typical analysis BA-TIG 430	0.04	0.35	0.5	0.1	0.1	16.5	0.015	0.015	0.15
W 17 acc. to ISO 14343-A	0.12	1.0	1.0	0.3	0.3	16.0- 19.0	0.03	0.02	0.3
ER430 acc. to AWS A5.9	0.10	0.5	0.6	0.75	0.6	15.5- 17.0	0.03	0.03	0.75

## All - Weld Metal Mechanical Properties / Welding Data:

Heat Treatment PWHT: 770°C x 2h  
Yield Strength Re, N/mm<sup>2</sup> (ksi) ≥ 350 (51)  
Tensile Strength Rm, N/mm<sup>2</sup> (ksi) ≥ 470 (68)  
Elongation A5 [%] ≥ 15  
Impact Energy ISO-V, J (ft lbs) +20°C: 27 (19)  
Current/polarity DC -  
Shielding Gas ISO 14175: I1

## Base Materials:

Surfacing: unalloyed and low-alloyed steels.  
Joining: corrosion resistant Cr-steels as well as other similar-alloyed steels with C-content up to 0.20 %.  
1.4510 X3CrTi17, AISI 430Ti; AISI 431

## 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 A5.9.

## Wire Rod Surface:

Smooth finish free from surface defects and foreign matter.