

# Solid Wire Electrode for MIG/MAG Welding

## BA-MIG 307Si

**Classification:** EN ISO 14343-A: **G 18 8 Mn**  
SFA-5.9: **ER(307)**

### Main Application:

BA-MIG 307Si is a solid wire electrode for GMAW, intended for welding work-hardenable steels, armor steel and austenitic stainless manganese steels. Also suitable for joining stainless chromium steels with chromium content up to 18% and overlay welding of mild steels and low-alloy steels. BA-MIG 307Si is similar to ER 307 type with increased manganese content ( $\approx 7.0\%$ ), reducing the risk for hot cracking.

**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-MIG 307Si	0.08	0,8	7.0	0.1	8.0	18.5	0.020	0.013	0.2
18 8 Mn acc. to ISO 14343-A	0.20	1.20	5.0-8.0	0.3	7.0-10.0	17.0- 20.0	0.03	0.03	0.3
ER(307) acc. to AWS A5.9	0.04- 0.14	0.30- 0.65	3.3-4.75	0.5-1.5	8.0-10.7	19.5- 22.0	0.03	0.03	0.75

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

Heat Treatment	As Welded
Yield Strength Re, N/mm <sup>2</sup> (ksi)	420 (61)
Tensile Strength Rm, N/mm <sup>2</sup> (ksi)	600 (87)
Elongation A5 [%]	>35
Impact Energy ISO-V, J (ft lbs)	+20°C: 120 (103)
Current/polarity	DC +
Shielding Gas	ISO 14175: M12/M13

### Base Materials:

Dissimilar joints, buttering and intermediate layers before hard overlays.  
Steels with manganese content up to 14%, steels with 13 - 17% chromium content.

### Package Forms:

Spools BS300/15 kg, D200/5 kg, and drums as standard package forms for GMAW wire electrodes.

### Diameter:

0,8 – 1,6 mm. Sizes and tolerances acc. to ISO 544 and AWS A5.9.

### Wire Electrode Surface:

Smooth finish free from surface defects and foreign matter.