

Classifications

EN ISO 14343-A	AWS A5.9 / SFA-5.9
W 18 8 Mn	ER307 (mod.)

Characteristics and typical fields of application

Solid wire TIG rod of W 18 8 Mn / ER307 (mod.) type for numerous applications. The weld metal offers exceptionally high ductility and elongation together with outstanding crack resistance. The weld metal can be post weld heat treated without any problems. The deposit will work harden and offers good resistance against cavitation.

Base materials

Dissimilar joints, tough buffer and intermediate layers prior to hardfacing, 14Mn steels, 13 – 17% Cr and heat resistant Cr and austenitic steels up to 850°C, armor plates, high carbon and quenched and tempered steels, surfacing of gears, valves, turbine blades, etc. For joint welding of unalloyed and low alloyed or Cr steels with high-alloyed Cr and CrNi-steels. Welding of austenitic high manganese steels and with other steels.

Typical analysis

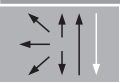
	C	Si	Mn	Cr	Ni
wt.-%	0.08	0.8	7.0	19.2	8.8

Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A ($L_0=5d_0$)	Impact energy ISO-V KV J	
	MPa	MPa	%	20°C	-110°C
u	460 (≥ 350)	650 (≥ 600)	38 (≥ 35)	(≥ 110)	(≥ 32)

u untreated, as-welded – shielding gas Ar

Operating data

	Polarity	DC-	Dimension mm
	Shielding gas (EN ISO 14175)	l1	1.6 × 1000
	Rod marking	+ W 18 8 Mn / 1.4370	2.0 × 1000
			2.4 × 1000
			3.2 × 1000

Preheat, interpass temperature and post-weld heat treatment as required by the base metal.

Approvals

DB (43.132.54), CE