

Classifications

AWS A5.9	EN ISO 14343-A	
ER307(mod.)	G 18 8 Mn	

Characteristics and typical fields of application

- GMAW solid wire of type G 18 8 Mn (ER307Si mod) designed for numerous applications.
- The weld metal offers exceptionally high ductility and elongation together with outstanding crack resistance . There is no fear of embrittlement when operating down to service temperatures of -110 or above +500. The scaling resistance goes up to +850(air)
- The weld metal can be post weld heat treated without any problems. The deposit will work harden and offers good resistance against cavitation. Ductility is good even after high dilution when welding problem steels or when subjected to thermal shock or scaling. Very good feeding, welding and wetting characteristics.

Base materials

For fabrication, repair and maintenance.

Dissimilar joints, tough buffer and intermediate layers prior to hardfacing 14%

Manganese steels ,13-17% chromium heat resistance steels up to +850, armor plates, high carbon and quenched & tempered steels, surfacing of gears, valves, turbine blades etc.

Typical analysis of all-weld metal

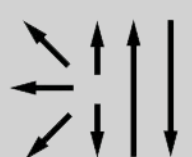
	C	Si	Mn	P	S	Cr	Ni		
wt-%	0.08	0.80	7.0	0.015	0.015	19.0	8.5		

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 work ISO-V KV J	
	MPa	MPa	%	+20 °C	-40 °C
AW	430 (≥ 350)	590 (≥500)	42(≥ 30)	120 (≥ 47)	110 (≥32)

AW as welded

Operating data

	Polarity:	Electrode identification:	Shielding gas:	ø mm
	DC +	BÖHLER GMA 307Si/ ER307(mod.)	(ISO14175) M12	0.8
				1.0
				1.2
				1.6

Approvals

CE,DB