

GM 307Si

IDENTIFICATION

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CLASSIFICATION

EN 14343 (EN 12072, G 18 8 Mn)

DESCRIPTION

The wire gives a strong, ductile and tough austenitic deposit, which works-hardens from about 200HV to 450HV. Also compatible with cast iron in some applications. The addition of about 6% Mn gives good crack resistance in difficult highly restrained joints.

CHEMICAL ANALYSIS (RANGE) %

C	Mn	Si	Cr	Ni	Cu	Mo	S	P
0.2 max	05-Aug	0.60 - 1.20	17 - 20	07-Oct	0.3 max	0.3 max	0.03 max	0.03 max

MECHANICAL PROPERTIES (RANGE)

UTS (MPa)	EL (%)	CVN Impact Value	
		Temp	Joules
590 min	30 min	-50°C	95

TYPICAL APPLICATIONS

- Joining, repair and build up of 13% Mn (Hadfield) steel castings combinations of mild, hardenable or stainless steels with little or no preheat.
- Used for mixed welding where deposits have to be heat treated and for surfacing and buttering. The most versatile and economic solid wires for dissimilar welds.
- For joining dissimilar materials such as stainless steel, grade 304 with ferritic stainless steel, grade 409 etc.

SHIELDING GAS : Ar + 2 % O₂ , Ar + 5 - 20 % CO₂

WELDING MODE : (=+)

PACKING PARAMETERS

Size (mm)	Welding Parameters		Weight / Spool (kg)
	Pulsed arc (A)	(V)	
0.8	100 - 150	22 - 27	12.5 / 15.0
1	120 - 200	24 - 28	12.5 / 15.0
1.2	140 - 220	24 - 28	12.5 / 15.0
1.6	180 - 260	24 - 30	12.5 / 15.0