

SMT-316LSi INOX

AWS A5.9/ ASME SFA5.9 ER 316LSi

EN 14343 – G/W 19.12. 3. L. Si



❖ Specifications

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❖ Approvals

TUV, DB, CE Marking

❖ Applications

For welding austenitic stainless steel of type 18 Cr 12 Ni 2.0 Mo or similar molybdenum allotted acid resisting steels. The filler metal is also suitable for welding titanium & niobium stabilized steels such as ASTM 316Ti in cases where the construction is used at temperature not exceeding 400°C. For higher temperatures, a niobium stabilized consumable such as 318 is recommended.

❖ Corrosion resistance

Excellent resistance to corrosion, pitting and intergranular corrosion in general and dilute acidic conditions. The resistance to intergranular corrosion is good in chloride containing environments too. The PRE (Pitting Resistance Equivalent) is about 25.

❖ Ferrite Content

Ferrite Number about 8– WRC-92

❖ Shielding Gas

M12 Argon+2% CO₂ ,14-20 L/min, M13 Argon+1-3% O₂ ,14-20 L/min

❖ Typical Chemical Composition of Wire

	C %	Mn %	Si %	Cr %	Ni %	S %	P %	Mo %
Min	-	1.0	0.65	18	11	-	-	2.5
Max	0.03	2.5	1.00	20	14	0.03	0.02	3

❖ Typical Mechanical Properties (as Weld)

Yield Strength	Tensile Strength	Elongation on % A5	Hardness	Impact Energy(20°C)	Impact Energy(-196°C)
(N/mm ²)	(N/mm ²)	%	BHN	Joule	Joule
400	600	40	190	110	40



❖ Welding Parameters for GMAW

	DCEP		
Diameter (mm)	0.80	1.00	1.20
Welding Current (Amps)	130-200	160-250	190-340
Arc Voltage (Volts)	19-26	20-28	22-30
Wire feed speed (m/min)	7 - 13	6 - 10	3 - 8
Gas flow rate (LPM)	12 – 15	12 – 15	12 – 15

❖ Welding Parameters for GTAW

	DCEN		
Diameter (mm)	1.60	2.40	3.20
Welding Current (Amps)	80-150	130-240	200-360
Arc Voltage (Volts)	11-12	12-13	12-13
Gas flow rate (LPM)	10-15	10-15	10-15