

DESCRIPTION

Executive 307Si is an austenitic stainless steel wire with very low ferrite. This alloy is basically a modified 307 with higher manganese to improve hot cracking resistance. The high silicon content provides very good wettability, which ensures a smooth spatter free weld deposit.

APPLICATIONS & FEATURES

This alloy is a good choice for welding thick plates such as armor plate, manganese steel and wear plates. It is also a very good choice for welding dissimilar metals like carbon steel to stainless steel, where a PWHT is required. The resulting weld deposit possesses corrosion resistance up to 1,500°F. Executive 307Si is also a good option as a buttering first pass layer for many hard facing alloys.

TYPICAL WIRE CHEMISTRY & MECHANICAL PROPERTIES

C	Cr	Ni	Mo	Mn	Si	P	S	Cu	
0.10	21.0	9.0	0.5	8.0	0.80	0.03	0.01	0.05	
Tensile Strength:		87,000 psi		Elongation:		39%		Ferrite Range:	4-7 FN (WRC-92)
Yield Strength:		67,000 psi							

TYPICAL WELDING PARAMETERS

Process	Diameter	Voltage	Amperage	WFS (in/min) / Gas Flow	Shielding Gas/Flux*
SAW	.093"	28-32	275-300	20-30 IPM	Contact technical
	.125"	29-32	350-450	20-30 IPM	services to determine
	.156"	30-34	400-600	20-30 IPM	suitable flux
GMAW	.035"	26-31	150-210	30-50 CFH	98-99% Ar + 1-2% O ₂
(Spray Arc)	.045"	28-32	180-240	30-50 CFH	98-99% Ar + 1-2% O ₂
GTAW	.093	Direct Current;	Electrode	30-40 CFH	100% Ar

STANDARD PACKAGING

SMAW	33-lb wire basket spools	1,980-lb pallet
SAW	60-LB coil on cardboard liner	1,980-lb pallet
GTAW	10-LB plastic tube	40-LB master carton

CLASSIFICATION

There is currently no AWS/SFA Classification for this material, but it is similar to A5.9/SFA-5.9, Class **ER307**. Wire chemistry has been optimized for best performance, and conforms to EN ISO 14343-A, Class G 18 8 Mn.