

DESCRIPTION

Executive 100S-1 is designed to weld high strength low alloy steels such as HY-80 and HY-100 using MIG and TIG welding processes. With additions of nickel and molybdenum, Executive 100S-1 produces high strength weld deposits that exhibit good low temperature impact resistance down to -60°F (-51°C). This filler metal also provides very good resistance to cold cracking.

Executive 100S-1 filler metal is produced using high quality raw materials and tightly controlled chemistry to provide top quality, exceptionally clean wires that deliver smooth feedability and the results fabricators demand.

APPLICATIONS & FEATURES

Executive 100S-1 is for welding HSLA type steels for military equipment and other critical applications where high strength and good impact values are required.

Typical materials include ASTM A 514, A543 as well as HY-80, HY-90 and HY-100.

TYPICAL WIRE CHEMISTRY & MECHANICAL PROPERTIES

C	Mn	Si	Cr	Mo	P	S	Cu	Ni	N	Al	V	Ti	Zr	Nb	Co
0.072	1.502	0.457	0.026	0.374	0.008	0.001	0.029	1.587	0.004	0.003	0.003	0.002	0.001	0.002	0.006

Tensile Strength:	105,200 PSI min	Yield Strength:	95,700 PSI min	Elongation:	20%
Charpy V-Notch:	60 ft/lb at -60°F / -50°C				

TYPICAL WELDING PARAMETERS

Process	Diameter	Voltage	Amperage	Speed (in/min)	Shielding Gas / Flux
GMAW - Short	.035"	14-20	90-160	100	100% CO ₂
	.045"	16-20	120-200	150	75% Ar / 25% CO ₂
	- Spray	25-28	180-230	125	98% Ar / 2% O ₂
	.045"	25-30	250-350	150	75% Ar / 25% CO ₂
GTAW	.093" .125"	Direct Current; Electrode -			100% Ar

STANDARD PACKAGING

GMAW (MIG)	33-lb plastic spools	1,980-lb pallet
GTAW (TIG)	10-lb plastic tube	40-lb box

CLASSIFICATION

AWS/SFA 5.28, Class **ER100S-1**

