

EXECUTIVE 625

NICKEL ALLOY

SOLID WIRE TECHNICAL DATA SHEET

DESCRIPTION

Executive 625 is a nickel-chromium-molybdenum alloy designed for welding alloy 625 and alloy 825 using TIG, MIG and SAW welding processes. This alloy is also used for many dissimilar Inconel® alloy joints and weld overlay. The high alloy content of Executive 625 produces high strength weld material with excellent corrosion resistance at elevated service temperatures. The increased level of molybdenum offers excellent resistance to stress corrosion cracking, pitting, and crevice corrosion. The low iron content of Executive 625 also makes it an excellent choice for overlay applications and has an operating range from cryogenic to beyond 1000°F (540°C).

Executive 625 filler metal is produced using high quality raw materials and tightly controlled chemistry to provide top quality, exceptionally clean wires that deliver the results fabricators demand. Use Executive 60/22/9 where flux cored wire is suited to the application.

APPLICATIONS & FEATURES

Executive 625 is a versatile filler metal that is used to weld dissimilar joints between nickel-chrome-molybdenum alloys and stainless, carbon or low alloy steels. It is also used when welding various nickel alloys such as 9% nickel steel, Monel®, Inconel®, 254SMO, and AL-6XN.

Executive 625 is used extensively for overlay applications as well due to its restricted low iron content which ensures the highest corrosion standard for these applications.

TYPICAL WIRE CHEMISTRY & MECHANICAL PROPERTIES

С	Mn	Fe	Р	S	Si	Cu	Ni	ΑI	Ti	Cr	Nb+Ta	Mo Co
0.01	0.003	0.28	0.004	0.001	0.05	0.01	64.4	0.15	0.21	22.60	3.462	8.73.01

Tensile Strength: 110,000 PSI Yield Strength: 85,000 PSI Elongation: 34%

TYPICAL WELDING PARAMETERS

Process	Diameter	Voltage	Amperage	Gas Flow	Shielding Gas / Flux		
GMAW - Short	.035"	17-20	70-90		1000/ Ar		
	.045"	19-22	75-160	20 +- 50 6511	100% Ar 75% Ar / 25% He		
- Spray	.045"	30-32	190-250	30 to 50 CFH			
- Pulse	.045"	18-20	120-150		90% He / 7.5% Ar / 2.5% CO ₂		
GTAW	.093"	Direct Currer	nt; Electrode -	30 to 40 CFH	100% Ar		
SAW	.062"	28-32	250-280				
	.093"	28-33	275-350		NiCr-W Flux		
	.125"	29-34	350-450				

STANDARD PACKAGING

GMAW (MIG) 33-lb wire baskets 500-lb Drum
GTAW (TIG) 10-lb plastic tube 40-lb box

SAW 60-lb wire coil

60-lb Acro Pak

CLASSIFICATION

AWS/SFA 5.14, Class ERNiCrMo-3

Certified by the Canadian Welding Bureau (CWB) to AWS A5.14.

