

DESCRIPTION

Executive 5183 is the most common aluminum-magnesium alloy for welding 5083 base metal in ship building applications. With high strength values this makes Executive 5183 excellent in saltwater corrosion resistance when welded to 5083.

Executive aluminum wire is non-annealed which allows for smoother feedability especially when utilizing long MIG guns.

Our enhanced feedability design uses less lubricant than standard aluminum wire resulting in considerably less fume generation.

APPLICATIONS & FEATURES

Executive 5183 is typically utilized in marine and structural applications where high strengths, high fracture toughness for impact resistance and exposure to corrosive elements are important.

Suitable for cryogenic tanks, shipbuilding and other high strength structural; aluminum applications, bicycle frames, railing and offshore industries.

TYPICAL WIRE CHEMISTRY & MECHANICAL PROPERTIES

Al	Mn	Fe	Cu	Si	Mg	Ti	Zn	TOE	Be	Cr
Rem.	0.63	0.13	<0.01	0.05	4.80	0.09	<0.01	<0.15	<0.0001	0.09
Tensile Strength:		40,000 PSI min		Elongation:		12%				
Yield Strength:		18,000 PSI min								

TYPICAL WELDING PARAMETERS

Process	Diameter	Voltage	Amperage	Gas Flow	Shielding Gas / Flux
GMAW	.035"	23-25	90-170		
	.047"	25-27	110-220	30 to 50 CFH	100% Ar
	.062"	26-30	200-300		
GTAW	.093"	Direct Current; Electrode -		20 to 30 CFH	100% Ar
	.125"				

STANDARD PACKAGING

GMAW (MIG)	16-lb / 20-lb wire spools	1,536-lb / 1,920-lb pallet	300-lb / 500-lb drums
	1-lb plastic spools	20-lb box	
GTAW (TIG)	10-lb tube	50-lb box	

CLASSIFICATION

AWS/SFA 5.10, Class **ER5183**

