TECHALLOY® 718

Nickel ▪ AWS ERNiFeCr-2

KEY FEATURES

- This alloy can be age hardened to higher strengths
- Q2 Lot® - Certificate showing actual deposit composition available online

CONFORMANCES

AWS A5.14M: 2011 ERNiFeCr-2
UNS N07718

WELDING POSITIONS

All

TYPICAL APPLICATIONS

- Used for welding alloys 718, 706 and X-750
- Mainly used for welding high strength aircraft components and liquid rocket components involving cryogenic temperatures

SHIELDING GAS

MIG 75% Ar / 25% He
TIG 100% Ar

DIAMETERS / PACKAGING

Diameter in (mm)	MIG 33 lb (15 kg) Steel Spool	TIG 10 lb (4.5 kg) Tube 30 lb (13.6 kg) Master Carton	SAW 500 lb (227 kg) Speed-Feed® Reel
0.035 (0.9)	MG718035667		
0.045 (1.1)	MG718045667		
1/16 (1.6)	MG718062667		
3/32 (2.4)		TG718093638	SA718093692
1/8 (3.2)		TG718125638	

WIRE COMPOSITION[1] - *As Required per AWS A5.14M: 2011*

	%C	%Mn	%Fe	%P	%S
Requirements AWS ERNiFeCr-2	0.08 max	0.35 max	Remainder	0.015 max	0.015 max
Typcial Performance[2] Techalloy® 718	0.05	0.10	20	0.01	0.001
	%Si	**%Cu**	**%Ni**	**%Al**	**%Ti**
Requirements AWS ERNiFeCr-2	0.35 max	0.30 max	50.0 - 55.0	0.20 - 0.80	0.65 - 1.15
Typcial Performance[2] Techalloy® 718	0.06	0.01	53	0.45	1.0
	%Cr	**%Nb + Ta**	**%Mo**	**%Other**	
Requirements AWS ERNiFeCr-2	17.0 - 21.0	4.75 - 5.50	2.80 - 3.30	0.50 max	
Typcial Performance[2] Techalloy® 718	17.4	5.0	3.0	<0.50	

TYPICAL OPERATING PROCEDURES

Process	Diameter in (mm)	Voltage (volts)	Amperage	Gas
MIG	0.035 (0.9)	26-29	150-190	75% Argon / 25% Helium
	0.045 (1.1)	28-32	180-220	
	1/16 (1.6)	29-33	200-250	

[1]Typical all weld metal. [2]See test results disclaimer on pg. 13.
Safety Data Sheets (SDS) are available on our website at www.lincolnelectric.com