



# WB718T TIG WELDING WIRE

<b>Classifications</b>	<b>AWS A5.14/A5.14M:</b> ERNiFeCr-2 <b>UNS:</b> N07718																								
<b>Product Description</b>	WB718T is a TIG wire for the welding nickel base alloys, overlaying carbon steels and combinations of both.																								
<b>Applications</b>	WB718T is mainly used for high strength aircraft components and liquid rocket components involving cryogenic temperatures. Excellent pitting resistance. Typical materials to be welded: Alloys 718, 706 and X-750  This alloy is commonly used in the age hardened condition to increase strength.  Typical Age Hardening Procedure (AWS A5.14) 720°C for 8 Hrs > Furnace Cooled @ 56°C per Hr to 620°C > Held for 8 Hrs > Air Cooled.																								
<b>All-Weld Metal Composition (Wt. %)</b>		Ni	C	Mn	Fe	S	Si	P	Cr	Al	Ti														
	<b>min.</b>	50.0	-	-	-	-	-	-	17.0	0.20	0.65														
	<b>max.</b>	55.0	0.08	0.35	Bal.	0.015	0.35	0.015	21.0	0.80	1.15														
		Nb+Ta	Mo	Co	Cu	Other																			
	<b>min.</b>	4.75	2.80	-	-	-																			
	<b>max.</b>	5.50	3.30	-	0.30	0.50																			
<b>Typical All-Weld Metal Mechanical Properties</b>	<table border="0"> <tr> <td>Ultimate Tensile Strength</td> <td>MPa</td> <td>1200*</td> </tr> <tr> <td>0.2% Proof Stress</td> <td>MPa</td> <td>-</td> </tr> <tr> <td>Elongation on 4D</td> <td>%</td> <td>40</td> </tr> <tr> <td>Charpy Vee Impact @ -196°C</td> <td>Joules</td> <td>100</td> </tr> <tr> <td>Age Hardened Condition*</td> <td></td> <td></td> </tr> </table>										Ultimate Tensile Strength	MPa	1200*	0.2% Proof Stress	MPa	-	Elongation on 4D	%	40	Charpy Vee Impact @ -196°C	Joules	100	Age Hardened Condition*		
Ultimate Tensile Strength	MPa	1200*																							
0.2% Proof Stress	MPa	-																							
Elongation on 4D	%	40																							
Charpy Vee Impact @ -196°C	Joules	100																							
Age Hardened Condition*																									

<b>Wire Dia. (mm)</b>		0.6mm	0.8mm	1.0mm	1.2mm	1.6mm	2.4mm	3.2mm
<b>Current Range (Amps)</b>	<b>min.</b>	-	-	-	-	60	80	100
	<b>max.</b>	-	-	-	-	160	180	220
<b>Volt Range (Volts)</b>	<b>min.</b>	-	-	-	-	-	-	-
	<b>max.</b>	-	-	-	-	-	-	-
<b>Packaging Information</b>								
<b>Kg Per Tube</b>		-	-	-	-	5.0	5.0	5.0
<b>Storage</b>	<b>Storage</b> It is recommended that the WB range of wires are stored in a dry heated store at a minimum temperature of 18°C, and a maximum relative humidity of 60%.							
<b>Gases</b>	<b>Gas</b> Pure Argon				<b>Flow Rate</b> 12-14 L/min			

## Current Conditions DC- and Welding Positions

