



ESAB Welding &  
Cutting Products  
1500 Karen Lane, Hanover, PA 17331

# CERTIFICATE OF TYPICAL ANALYSIS

**This Material Conforms to Specification:**

AWS A5.5-96, ASME SFA 5.5

**Type:** E/7018-B2L\*\*

**Lot No.:** 4D218K01

**Shielding Gas:**

**X-Ray:**Satisfactory

**Long Face Bends:**

**Filletts:** OK Satisfactory

**Moisture @1800 F.:** 0.0600 %

**Concentricity:**2.0 %

**Heat Number.:** 243693

**Trade Name Or Trademark:** ATOM ARC 7018-B2L

**Diameter Size:**1/8

Typical Mechanical Properties

<u>Typical Chemical Properties</u>	<u>(Specification Requirements)</u>		<u>Stress Relieved MPa</u>
<b>Carbon:</b> 0.0300 (.05 Max)	Yield Strength(Psi)	68800	475.0
<b>Manganese:</b> 0.6500 (.90 Max)	Tensile Strength(Psi)	80900	558.0
<b>Chromium:</b> 1.1100 (1.00/1.50)	Elongation (2"), %	29.0	
<b>Nickel:</b> 0.0100	Red. of Area, %	77.3000	
<b>Silicon:</b> 0.3300 (.80 Max)	<b>Charpy V-Notch Impacts</b>		
<b>Columbium+:</b>			
<b>Tantalum:</b>			
<b>Molybdenum:</b> 0.5100 (.40/.65)			
<b>Tungsten:</b>			
<b>Copper:</b> 0.0200	<u>Specification Requirements</u>		
<b>Titanium:</b>	Minimum Unless	<u>Stress Relieved MPa</u>	
<b>Phosphorus:</b> 0.0140 (.03 Max)	Otherwise Stated	1 Hr. @ 1275F	690C
<b>Sulphur:</b> 0.0170 (.03 Max)	Yield Strength (Psi)	57000	390.0
<b>Vanadium:</b> 0.0100	Tensile Strength (Psi)	75000	520.0
<b>Cobalt:</b>	Elongation (2"), %	19.0	19.0
<b>Aluminum:</b>	Red. of Area, %		
<b>Nitrogen:</b>	<b>Charpy V-Notch Impacts</b>		
<b>Diffusible Hydrogen:</b> 1.6000 (ml/100gr Avg.)			

\* Formerly classified as an E 8018-B2L under AWS A5.5-81. \*\*Conforms to E7018-B2L H4R

The undersigned certifies that the product supplied will meet the requirements of the applicable AWS Filler Metal Specification and that no significant change has been made in the elements described in the qualification approval.

**ESAB** Your Partner In Welding & Cutting

By: K. Wildasin  
K. Wildasin, Supervisor, Q.A. Services