



# Material Test Report

(Certificate of Conformance to AWS D1.8 / D1.8M)

US Alloy Co. dba  
Washington Alloy Co.  
825 Groves St.  
Lowell, NC 28098

Certificate No. : 20200506-01

Issued Date : 06/05/2020

**Brand Name : E70T-1C, 9C H8**

**This material conforms to specification :**

**AWS Specification A5.20/5.20M, D1.8/D1.8M**

**Size : 3/32"**

**Classification : E70T-1C, 9C H8**

**Lot Number : E92003723**

Test Conditions	AWS D1.8 Requirements	High Heat Input	Low Heat Input
		Results	Results
Electrode Size, in(mm)		3/32"(2.4mm)	3/32"(2.4mm)
Electrode Polarity		DC +	DC +
Travel Speed (cm/min)		23	55
Current(A)		400	360
Voltage(V)		34	32
Passes / Layers		10/5	17/6
Preheat Temp.(°C)		185 (min.120)	25 (max.40)
Interpass Temp.(°C)		257 (min.240)	110 (max.120)
Shielding Gas		100% CO <sub>2</sub>	100% CO <sub>2</sub>
Heat Input KJ/in (KJ/mm) Avg.		3.5 (3.1)	1.2 (1.2)
Welding Position		1G	1G

### Mechanical Properties

Tensile Strength(MPa)	min.480	562	624
Yield Strength, 0.2% offset(MPa)	min.400	483	556
Elongation(%)	min.22	33	26
Charpy V-notch Impact Properties Joules@20°C	min.54J	Avg.132 (min.54)	Avg.98 (min.54)

- 1) This product satisfied the requirements of AWS D1.8/D1.8M, Annex E after exposure for 144hrs at 80°F, 80% relative humidity.
- 2) The Charpy V-notch impact values reported at 20 °C are required when the Lowest Anticipated Service Temperature(LAST) is 10°C.
- 3) Test assembly constructed of ASTM A516-70 steel.
- 4) The strength and elongation properties reported here were obtained from tensile specimens artificially aged at 105°C for 48hours.

The undersigned certifies that the products supplied will meet the applicable AWS filler metal specification when tested in accordance with those specifications.

By :   
Dave Colwell