

**Lincoln Electric Europe BV – Buzau Plant**  
 Aleea Industriilor, Nr. 1-1 BIS,  
 120068 Buzau - Romania

**CERTIFIED MATERIAL TEST REPORT**

Product: UltraCore® 360™ M71 diameter .045" - 1.2 mm  
 Lot Nr. : M1FC194149  
 Classification: ASME SFA-5.20: E71T-1M-JH4  
 ASME SFA-5.36: E71T1-M21A2-CS1-H4  
 Test Completed: December 17, 2021

This is to certify that the above listed product was manufactured to meet the Class T3 requirements of AWS A5.01 as required by clause 6.3.8 of AWS D1.8/D1.8M: 2009.

Test Conditions	AWS D1.8 requirements	High Heat Input Results	Low Heat Input Results
Electrode Size		.045" - 1.2 mm	.045" - 1.2 mm
Electrode Polarity		DC+	DC+
Wire Feed Speed m/min (inc/min)		8 (315)	10 (394)
Welding speed cm /min (inc/min)		9.2 (3.6)	32 (13)
Current (amps)		210	240
Arc Voltage (volts)		24	27
CTWD mm/(inch)		18 (0.71)	18 (0.71)
Preheat	Low ≤ 40°C High ≥ 120°C	150 (302)	23 (73)
Interpass Temp °C (°F)	Low ≤ 120°C High ≥ 240°C	254 (500)	90 - (194)
Heat Input Avg. kJ/mm (kJ/in.)	Low ≤ 1.2, High ≥ 3.1	3.3 (84)	1.2 (30)
Shielding Gas Used	M21	80%Ar 20%CO2	80%Ar 20%CO2
Weld position		3G (vertical up)	1G

Mechanical Properties	Actual Results of AWS D1.8 requirements	High Heat Input Results	Low Heat Input Results
Yield Strength, MPa (ksi) (0.2% offset method)	400 (58 min.)	452 (66)	621 (90)
Tensile Strength MPa (ksi)	480 (70 min)	539 (78)	660 (96)
Elongation %	22% min	34%	26%

Impact Properties	AWS D1.8 requirements	High Heat Input Results	Low Heat Input Results
Temperature	10 °C (20 °F)	Tested @ 10°C (20° F)	Tested @ 10°C (20° F)
Average Joules (ft-lbs)	54 min (40 min)	173 (128)	146 (108)
Individual Values Joules		178 169; 172	145; 145; 147

This is to certify that the contents of this report are correct and accurate as contained in the records of The Lincoln Electric Company.



Name, C. Dasca  
 QC Manager Buzau Plant

12/01/2022

Date