

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

CERTIFIED MATERIAL TEST REPORT

Product: UltraCore® 360™ M71 diameter 1/16" - 1.6 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		1/16" - 1.6 mm	1/16" - 1.6 mm
Electrode Polarity		DC+	DC+
Wire Feed Speed m/min (inc/min)		4.0 (157)	5 (197)
Welding speed cm /min (inc/min)		9.9 (3.9)	44 (17.3)
Current (amps)		240	280
Arc Voltage (volts)		22	28
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	260 (500)	120 - (248)
Heat Input Avg. kJ/mm (kJ/in.)	Low ≤ 1.2, High ≥ 3.1	3.2 (82)	1.07 (27.2)
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.)	487 (71)	518 (75)
Tensile Strength MPa (ksi)	480 (70 min)	565 (82)	576 (84)
Elongation %	22% min	31%	30%

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)	170 (125)	162 (119)
Individual Values Joules		166; 170; 173	166; 165; 154

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. Dascalu
 QC Manager Buzau Plant
 Date 12/01/2022