LINCOLN ELECTRIC ADDITIVE SOLUTIONS

410NiMo STAINLESS STEEL

KEY FEATURES

410NiMo stainless steel is known for its high strength and hardness as well as good resistance to atmospheric corrosion and mildly corrosive environments. Its high temperature oxidation and scaling resistance along with excellent wear resistance makes 410NiMo stainless steel ideal for applications such as: tool and die, turbomachinery, mining and minerals, power generation, petrochemical and more.

410NiMo stainless steel mechanical properties compare favorably to the following stainless steel grades:

ASTM A217, Grade CA15
ASTM A487, Grade CA15
ASTM A743, Grade CA15
ASTM A240, Grade 410
ASTM A276, Grade 410
ASTM A182, F6a Classes 3, 4

Typical Applications »

Tool and Die
Turbomachinery
Mining and Minerals
Power Generation
Petrochemical

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NOMINAL MECHANICAL PROPERTIES

GMAAM[1]		Room Temperature Strength			Toughness	Hardness
Wire Feedstock	Heat Treatment[2]	YS @ 0.2% Off (ksi)	UTS (ksi)	Elong (%)	ft-lbs @ -20 °F	Rockwell C
410NiMo	None	130	160	< 10	-	40
	900 °F	130	160	13	-	40
	1100 °F	100	110	17	> 20	25

(1) Gas Metal Arc Additive Manufacturing (GMAAM)

(2) Post-weld heat treatment: At temperature for 2 hours, furnace cool

The procedures Lincoln Electric uses to manufacture additive products comply with ASME BPVC Supplement 1 Code Case 3020: Qualification of Gas Metal Arc Additive Manufacturing (GMAAM) Procedures (Section IX).

Test Results

Test results for mechanical properties were obtained from GMAAM deposits produced and tested according to prescribed standards. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any GMAAM component before use in the intended application. This data is for illustrative purposes only. Actual results may vary.

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