

TECHALLOY® 4130

Low Alloy Steel

KEY FEATURES

- High strength, low alloy
- Preheat and inter-pass temperature of 400°F (204.4°C) is required

TYPICAL APPLICATIONS

- Joining steels of similar chemical composition
- Overlays where moderate hardness is required

WELDING POSITIONS

All

DIAMETERS / PACKAGING

Diameter in (mm)	TIG 50 lb (22.7 kg) Master Carton
1/16 (1.6)	TG4130062628
3/32 (2.4)	TG4130093628
1/8 (3.2)	TG4130125628

WIRE COMPOSITION⁽¹⁾

	%C	%Mn	%Si	%Fe	%Cr	%Mo	%Ni	%V
Typical Results ⁽³⁾	0.31	0.52	0.28	Balance	0.93	0.20	-	-

MECHANICAL PROPERTIES⁽⁴⁾

	Yield Strength ⁽²⁾ MPa (ksi)	Tensile Strength MPa (ksi)	Elongation %
Typical Results ⁽³⁾	900 (130)	1,000 (145)	11

TYPICAL OPERATING PROCEDURES

Process	Diameter in (mm)	Voltage (volts)	Amperage	Gas
TIG	1/16 (1.6)	12-15	100-125	100% Ar
	3/32 (2.4)	15-20	125-175	
	1/8 (3.2)	15-20	175-250	

⁽¹⁾Typical deposit composition. ⁽²⁾Measured with 0.2% offset. ⁽³⁾See test results disclaimer. ⁽⁴⁾Quenched from 1,550 F (843 C) in oil and tempered at 1,050 ° F (565 ° C). Safety Data Sheets (SDS) are available on our website at www.lincolnelectric.com

Material Safety Data Sheets (MSDS) and Certificates of Conformance are available on our website at www.lincolnelectric.com

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application.

CUSTOMER ASSISTANCE POLICY

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