TECHALLOY® 413

Nickel ▪ AWS ERCuNi

KEY FEATURES

- This filler metal can be used for MIG overlay on steel after a first layer with Nickel 208
- Dissimilar welding applications include joining copper-nickel alloys to Nickel 200 or nickel-copper alloys
- Q2 Lot® -Certificate showing actual deposit composition available online

CONFORMANCES

AWS A5.7:	ERCuNi
UNS	C71580

TYPICAL APPLICATIONS

- Used for TIG and MIG and oxy-fuel welding of 70/30, 80/20 and 90/10 copper-nickel alloys

WELDING POSITIONS

All

SHIELDING GAS

MIG 75% Ar / 25% He
TIG 100% Ar

DIAMETERS / PACKAGING

Diameter in (mm)	MIG 33 lb (15 kg) Steel Spool	TIG 10 lb (4.5 kg) Tube 30 lb (13.6 kg) Master Carton
0.035 (0.9)	MG413035667	
0.045 (1.1)	MG413045667	
1/16 (1.6)	MG413062667	TG413062638
3/32 (2.4)		TG413093638
1/8 (3.2)		TG413125638

WIRE COMPOSITION[1] - *As Required per AWS A5.7*

	%Cu	%Mn	%Fe	%Si	%Ni
Requirements AWS ERCuNi	Remainder	1.0 max	0.40 - 0.75	0.25 max	29 - 32
Typcial Performance[2] Techalloy® 413	67.5	0.7	0.55	0.1	30
	%P	**%Pb**	**%Ti**	**%Other**	
Requirements AWS ERCuNi	0.02 max	0.02 max	0.20 - 0.50	0.50 max	
Typcial Performance[2] Techalloy® 413	0.006	0.003	0.25	<0.50	

TYPICAL OPERATING PROCEDURES

Process	Diameter in (mm)	Voltage (volts)	Amperage	Gas
MIG	0.035 (0.9) 0.045 (1.1) 1/16 (1.6)	25-29 25-28 29-33	150-190 180-240 200-250	75% Argon / 25% Helium

[1]Typical all weld metal. [2]See test results disclaimer
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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Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.com for any updated information.

Publication C14.10.5 | Issue Date 12/15

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