

TECHALLOY® 625

Nickel ▪ AWS ERNiCrMo-3

KEY FEATURES

- The Ni-Cr-Mo alloy system provides excellent resistance to oxidizing and reducing environments
- The high molybdenum content provides good stress, pitting and crevice corrosion resistance
- Q2 Lot® - Certificate showing actual deposit composition available online
- Most popular nickel alloy for cladding

WELDING POSITIONS

All

CONFORMANCES

AWS A5.14M: 2011
UNS

ERNiCrMo-3
N06625

TYPICAL APPLICATIONS

- Used for TIG, MIG and SAW welding of nickel-chromium-molybdenum alloys
- This filler metal may be used for cladding and welding dissimilar base metals such as Ni-Cr-Mo alloys to stainless and carbon steels

SHIELDING GAS

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

DIAMETERS / PACKAGING

Diameter in (mm)	MIG 33 lb (15 kg) Steel Spool	MIG 60 lb (27 kg) Steel Spool	MIG 250 lb (113.4 kg) Accu-Trak® Drum	MIG 300 lb (136 kg) Speed-Feed® Reel	TIG 10 lb (4.5 kg) Tube 30 lb (13.6 kg) Master Carton	SAW 55 lb (25 kg) Basket
0.035 (0.9)	MG625035667					
0.045 (1.1)	MG625045667	MG625045679	MG625045684			
1/16 (1.6)	MG625062667			MG625062693	TG625062638	
3/32 (2.4)					TG625093638	SA625093726
1/8 (3.2)					TG625125638	SA625125726
5/32 (4.0)					TG625156638	

WIRE COMPOSITION⁽¹⁾ - As Required per AWS A5.14M: 2011

	%C	%Mn	%Fe	%P	%S	%Si	%Cu
Requirements AWS ERNiCrMo-3	0.10 max	0.50 max	5.0 max	0.02 max	0.015 max	0.50 max	0.50 max
Typical Performance⁽²⁾ Techalloy® 625	0.02	0.1	0.4	0.005	0.001	0.14	0.01
	%Ni	%Al	%Ti	%Cr	%Nb+Ta	%Mo	%Other
Requirements AWS ERNiCrMo-3	58.0 min	0.40 max	0.40 max	20.0 - 23.0	3.15 - 4.15	8.0 - 10.0	0.50 max
Typical Performance⁽²⁾ Techalloy® 625	64	0.1	0.17	21.7	3.8	8.5	<0.50

TYPICAL OPERATING PROCEDURES

Process	Diameter in (mm)	Voltage (volts)	Amperage	Gas
MIG	0.035 (0.9)	26-29	150-190	75% Argon / 25% Helium
	0.045 (1.1)	28-32	180-220	
	1/16 (1.6)	29-33	200-250	
SAW	3/32 (2.4)	28-30	275-350	Lincolnweld® P2000
	1/8 (3.2)	29-33	350-450	

⁽¹⁾Typical all weld metal. ⁽²⁾See test results disclaimer on pg. 13.
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

The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

Lincoln Electric is a responsive manufacturer, but the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

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.

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