

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

RECOMMENDED FLUXES

SAW P2000

DIAMETERS / PACKAGING

Diameter in (mm)	MIG 33 lb (15 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	SAW 500 lb (227 kg) Speed Feed® Drum
0.035 (0.9)	MG625035667	MG625045684	MG625062693	TG625062638 TG625093638 TG625125638 TG625156638	SA625093726 SA625125726	SA625093692 SA625125692 SA625156692*
0.045 (1.1)	MG625045667					
1/16 (1.6)	MG625062667					
3/32 (2.4)						
1/8 (3.2)						
5/32 (4.0)						

*Available upon request

CONFORMANCES

AWS A5.14M: ERNiCrMo-3
UNS N06625
MIL-E-21562E (SH) EN 625

TYPICAL APPLICATIONS

- Used for MIG, TIG 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

WIRE COMPOSITION - As Required per AWS A5.14M

	%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 Results⁽¹⁾ 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 Results⁽¹⁾ 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 / Flux
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⁾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

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.

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