

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
UNSERNiCrMo-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
Requirements AWS ERNiCrMo-3	0.10 max	0.50 max	5.0 max	0.02 max	0.015 max
Typical Performance⁽²⁾ Techalloy® 625	0.02	0.1	0.4	0.005	0.001
	%Si	%Cu	%Ni	%Al	%Ti
Requirements AWS ERNiCrMo-3	0.50 max	0.50 max	58.0 min	0.40 max	0.40 max
Typical Performance⁽²⁾ Techalloy® 625	0.14	0.01	64	0.1	0.17
	%Cr	%Nb+Ta	%Mo	%Other	
Requirements AWS ERNiCrMo-3	20.0 - 23.0	3.15 - 4.15	8.0 - 10.0	0.50 max	
Typical Performance⁽²⁾ Techalloy® 625	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)	29-32	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