

TECHALLOY® 625

Premium nickel wire for automated hot wire TIG and MIG applications providing a superior quality overlay

PREMIUM QUALITY, OPTIMAL RESULTS

Clean Weld Deposit

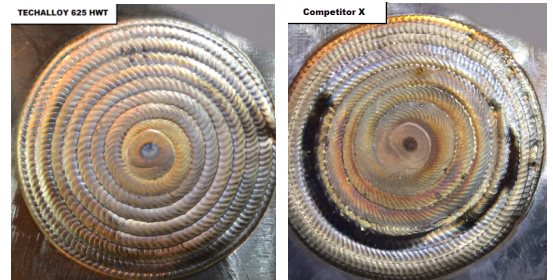
- Proprietary surface treatment provides:
 - » Clean weld deposit – minimal brushing required
 - » Reduced porosity and weld defects

Wire Placement Consistency

- Critical to quality cladding
- Steady –centered wire results to minimize repairs and rework

Superior Feedability

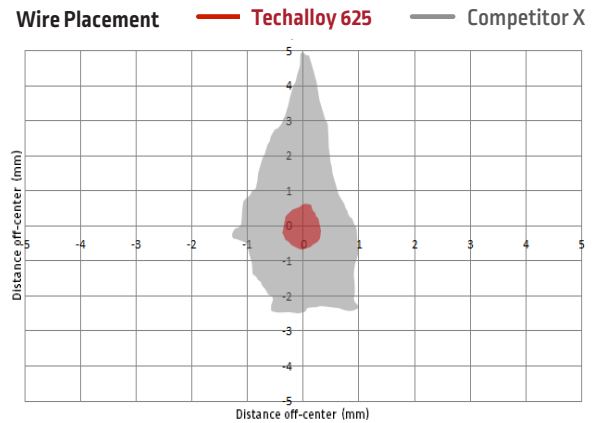
- Proprietary surface treatment keeps wire flowing under challenging wire feed conditions, especially in hot wire TIG applications
- No cladding voids
- Extends life of gun liners and contact tips



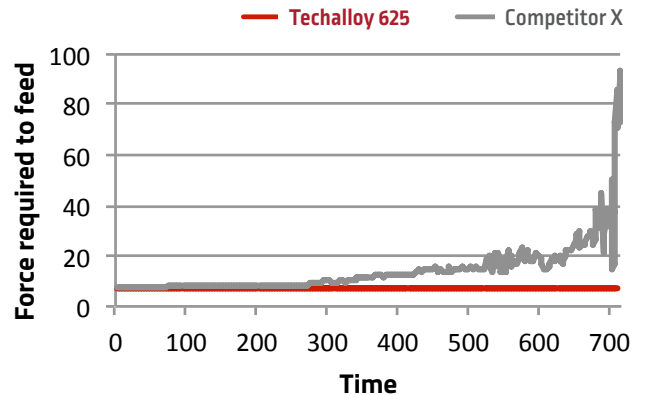
Techalloy® 625

Competitor X

- Competitor X has carbon deposits, pitting, and inconsistent dime pattern



- **Techalloy 625** - Red centered spot shows the steadiness of the wire placement
- **Competitor X** - Gray mass shows significant fluctuation in wire placement



- Flat line indicates consistent force resulting in consistent deposit
- Competitive product exhibits inconsistent feed force that can cause voids in the overlay

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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

	%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

Safety Data Sheets (SDS) are available on our website at www.lincolnelectric.com.

Note: Hot Wire TIG process settings vary among machines; consult machine instruction guide for recommended parameters.

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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