

Techalloy[®] 630

AWS ER630

CONFORMANCES

AWS A5.9 ER630

UNS S17480



Techalloy[®] 630 is a precipitation hardening stainless steel covered electrode used for welding materials of similar chemical composition such as 17-4 and 17-7. Can be used in the as welded condition or may be heat treated to obtain higher strength. Mechanical properties of the alloy are greatly influenced by the heat treatment.

Applications: Hydraulic equipment components, Impellers, Pump shafts

DIAMETERS / PACKAGING

Diameter in (mm)		MIG WIRE 33 lb (14.9 kg) Wire Basket	TIG 10 lb (4.5 kg) 30 lb (13.6 kg) Master Carton	SAW WIRE 60 lb (27.2 kg) Coil
0.035	(0.9)	MG630035667		
0.045	(1.2)	MG630045667		
1/16	(1.6)		TG630062638	
3/32	(2.4)		TG630093638	SA630093692

DEPOSIT COMPOSITION

	%C	%Cr	%Ni	%Mo	%Nb
Requirements AWS ER630	0.05 max.	16.00 - 16.75	4.5 - 5.0	0.75 max.	0.15 - 0.30
Typical Performance Techalloy® 630	0.03	16.5	4.8	0.2	0.22
	%Mn	%Si	%P	%S	%Cu
Requirements AWS ER630	0.25 - 0.75	0.75 max.	0.03 max.	0.03 max.	3.25 - 4.0
Typical Performance Techalloy® 630	0.54	0.43	0.02	0.02	3.6

TYPICAL OPERATING PROCEDURES

Process	Diameter in (mm)	Voltage (volts)	Amperage	Gas Flow	Gas
MIG	0.035 (0.9) 0.045 (1.2)	26-29 28-32	160-210 180-250	30-50 CFH	98/99% Argon + 2/1% Oxygen 97% Argon + 3% CO ₂
TIG	1/16 (1.6) 3/32 (2.4)		90-130 120-175	20-40 CFH	100% Argon
SAW	3/32 (2.4)				Lincolnweld® P2007

Material Safety Data Sheets (MSDS) are available on our website at www.techalloy.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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