



Techalloy 72

Description

Techalloy 72 is a high Chromium-Nickel alloy used for joining, repair and overlay cladding of Ni-Cr and Ni-Fe-Cr components. It resists high temperature corrosion including fuel-ash corrosion and erosion in atmospheres containing sulfur. It is used primarily for boiler tube overlay in coal fired boiler systems.

Specifications & Approvals

AWS A5.14 ERNiCr-4

UNS N06072

CWB

Typical Chemical Composition

C	Mn	Si	Fe	Cr	Mo	Ni	Nb	W	S	P	Al	Ti	Cu
.030	.10	.10	.10	43.00	.01	56.00			.01	.01	.20	.50	.10

Typical Mechanical Properties

Tensile Strength	105,000 PSI	730 MPA
Yield Strength		
Elongation	30%	

Welding Parameters

Process	Diameter	Voltage	Amperage	Gas
TIG	.035" (0.9mm)	12-15	60-90	100% Argon
	.045" (1.2mm)	13-16	80-110	100% Argon
	1/16" (1.6mm)	14-18	90-130	100% Argon
	3/32" (2.4mm)	15-20	120-175	100% Argon
	1/8" (3.2mm)	15-20	150-220	100% Argon
MIG	.035" (0.9mm)	26-29	150-190	75% Argon + 25% Helium
	.045" (1.2mm)	28-32	180-220	75% Argon + 25% Helium
	1/16" (1.6mm)	29-33	200-250	75% Argon + 25% Helium
SAW	3/32" (2.4mm)	28-30	275-350	Suitable Flux may be used
	1/8" (3.2mm)	29-32	350-450	Suitable Flux may be used
	5/32" (4.0mm)	30-33	400-550	Suitable Flux may be used

Standard Packages:

MIG Wire– 33# wire basket	TIG Wire– 10# tube/30# Master Carton	SAW– 60# Coil
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