Unibraze 410

CLASSIFICATIONS: AWS A5.9/ASME SFA 5.9 Class ER410 UNS S41080

DESCRIPTION: Unibraze 410 is used to weld stainless grades 403, 405, 410, 416 and for welding overlay on carbon steels to resist corrosion, erosion, or abrasion. Since Unibraze 410 is an air hardening type of material the joint should be preheated to 350ºF.

TYPICAL CHEMISTRY:

C	Cr	Ni	Mo	Mn	Si	P	S	N	Cu	FN (WRC)
.12 max	11.5-13.5	.60 max	.75 max	.60 max	.50 max	.03 max	.03 max		.75 max	0

TYPICAL MECHANICAL PROPERTIES:
(As welded post weld heat treatment 1350º-1400º for one hour)

Tensile Strength	89,000 psi (620MPa)
Yield Strength	78,500 psi (540 MPa)
Elongation	24%

TYPICAL WELDING PARAMETERS:

	Shielding Gas	Gas Flow	Diameter	Voltage	Amperage
MIG	98/99% Ar +2/1% O 97%Ar + 3% CO_2	30 to 50 CFH	.035" (.9mm) .045" (1.14mm) .062" (1.6mm)	26-29 28-32 29-33	160 /210 180/250 200/280
TIG	100% Ar		1/16" (1.6mm) 3/32" (2.4mm) 1/8" (3.2mm)	14-18 15-20 15-20	90/130 120/175 150/220
SUBARC	Suitable Flux		3/32" (2.4mm) 1/8" (3.2mm)	28-33 29-32	275/350 350/450

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