Unibraze 309-16/309H-16

CLASSIFICATIONS: AWS A5.4/ASME SFA 5.4 Class E309-16/E309H-16 UNS W30910

DESCRIPTION: Unibraze 309-16/ 309H-16 is an all position stainless steel electrode that is the same as E309-16 except the carbon content is restricted to .04 minimum. The carbon restriction provides higher tensile and creep strengths at elevated temperatures. **Unibraze 309H-16** is suitable to weld corrosion and oxidation resistant 24Cr/12Ni wrought and cast steels and dissimilar welding of carbon and low alloy steel to stainless steels.

Typical Chemistry:

	C	Cr	Ni	Mo	Mn	Si	P	S	Cu	FN (WRC)
AWS/ ASME	.04-.15	22.0-25.0	12.0-14.0	.75 max	.5-2.5	1.0 max	.04 max	.03 max	.75 max	Not Required
Typical	.099	23.1	12.56	.016	1.06	.85	.005	.003	.029	2 -8

Typical Mechanical Properties:

	AWS/ASME	Typical
Tensile Strength	80,000 psi (550 MPa) min.	91,230 (629 MPa)
Yield Strength	Not required	-
Elongation	30% min.	37%

Typical Welding Parameters: (DCEP or AC)

Dia.	Amps Flat	Amps Out of Position	Voltage
3/32”	70-90	65-80	20-23
1/8”	80-110	75-95	21-24
5/32”	110-160	100-120	22-25
3/16”	120-190	110-130	23-26