



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

Notice: The results reported are based upon testing of the product under controlled laboratory conditions in accordance with American Welding Society Standards. Actual use of the product may produce different results due to varying conditions. An example of such conditions would be electrode size, plate chemistry, environment, weldment design, fabrication methods, welding procedure and service requirements. Thus the results are not guarantees for use in the field. The manufacturer disclaims any warranty of merchantability or fitness for any particular purpose with respect to its products.