BOHLER TIG N 308L

GTAW rod, high alloyed chemical resistant

Classification

AWS A5.9/A5.9M	EN ISO 14343-A	EN ISO 14343-B		
ER 308L	W 19 9 L	SS308L		

Characteristics and field of use

- BOHLER TIG N 308L designed for welding austenitic stainless steel type 19 Cr 10 Ni or similar.
- GTAW rod of type W 19 9 L/ ER 308L designed for first class welding with good wetting characteristics and excellent CVN down to -196^{0}C.
- The wire is also suiatble for welding titanium and niobium stabilized steels such as ASTM 321 and ASTM 347 in cases where the construction is used at temperatures not exceeding 400^{0}C.

Base Materials

1.4306 X2CrNi19-11, 1.4301 X5CrNi18-10, 1.4311 X2CrNiN18-10, 1.4312 GX10CrNi18-8, 1.4541 X6CrNiTi18-10, 1.4546 X5CrNiNb18-10, 1.4550 X6CrNiNb18-10
AISI 304, 304L, 304LN, 302, 321, 347; ASTM A157 Gr. C9; A320 Gr. B8C OR D

Typical Composition of solid wire (wt. - %)

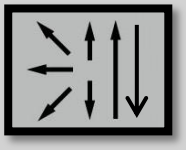
C	Si	Mn	Cr	Mo	Ni	FN (WRC-92)
≤0.02	0.40	1.75	19.80	0.16	9.5	3 – 11

Mechanical Properties of all weld

Heat treatment condition	Yield strength R_e N/mm^2	Tensile strength R_m N/mm^2	Elongation (L_0=4d_0)	Impact Test Values	
	MPa	MPa	%	+20^{0}C	-196^{0}C
As Welded	≥400	≥550	≥35	≥100J	≥35J

Operating data

Position



Polarity

DCEN

Size:
Ø mm – 1.2,1.6, 2.0, 2.4, 3.2
Length: 1000mm
Packaging
5Kg Plastic Tubes in 20Kgs Corrugated Box

Shielding Gases:
100% Argon
Rod Marking:
Front: ER 308 L
Back: W 19 9 L

Interpass Temperature: Max. 150^{0}C
Heat Input: Max. 2.0KJ/mm.
Heat Treatment: Generally none (in special cases quench annealing at 1050^{0}C).
Scaling Temperature: Approx. 850^{0}C (air)
Corrosion Resistance: Corresponding to ASTM 304, i.e. fairly good under severe conditions such as in oxidizing and cold dilute reducing acids. Passes corrosion test as per IGC Practice 'E' requirements.