



308L

DESCRIPTION: Weldcote Metals 308L has the same analysis as type 308 except the carbon content has been held to a maximum of .03% to reduce the possibility of intergranular carbide precipitation. Ideal for welding Types 304L, 321, and 347 stainless steels. This is a suitable wire for applications at cryogenic temperatures.

APPROVALS: Manufactured under Quality System approved by ASME, 1S09001. Meets AWS 5.9 Class ER308L. Approved by Canadian Welding Bureau.

CHEMICAL COMPOSITION

Carbon	0.030
Manganese	1.000-2.500
Silicon	0.300-0.650
Chromium	19.500-21.000
Nickel	9.000-11.000
Molybdenum	0.300
Sulfur	0.020
Phosphorus	0.030
Copper	0.300

MECHANICAL PROPERTIES

Tensile Strength

85,000 PSI 590 MPA

Yield Strength

57,000 PSI 390 MPA

Elongation

40%

WELDING PARAMETERS

- a) **MIG WELDING:** Direct current; Electrode +Ve
 Shielding Gas 98/99% Argon + 2/1% Oxygen
 97% Argon + 3% CO₂
 Gas Flow 30 to 50 CFH
 Voltage 29 to 33
 Amperage 160/180 for .035" (0.9mm)
 180/220 for .045" (1.14mm)
 210/250 for .062" (1.6mm)
- b) **TIG WELDING:** Direct Current; Electrode -Ve
 Shielding Gas 100% Argon
 Gas Flow 30 to 40 CFH
- c) **SUB-ARC WELDING:** Direct Current; Electrode + Ve
 Voltage 29 to 32
 Amperage 300 to 350 for 3/32" (2.5mm)
 400 to 550 for 1/8" (3.14mm)
 500 to 650 for 5/32" (4.0mm)
 Speed of Welding 20 to 30 IPM (500 to 750mm)/min.

Weldcote Metals believes this data to be accurate and to reflect qualified expert opinion regarding current research. However, Weldcote Metals can not make any expressed or implied warranty as to this information.