



317L

DESCRIPTION: Weldcote Metals 317L is used for welding stainless steels with similar composition. Due to its higher molybdenum content this alloy offers high resistance to pitting and crevice corrosion. Low carbon makes the weld metal less susceptible to inter granular corrosion.

APPROVALS: Manufactured under Quality System approved by ASME, IS09001. Meets AWS 5.9 Class ER317L. Approved by Canadian Welding Bureau.

CHEMICAL COMPOSITION

Carbon	0.030
Manganese	1.000-2.500
Silicon	0.300-0.650
Chromium	18.500-20.000
Nickel	13.000-15.000
Molybdenum	3.000-4.000
Sulfur	0.020
Phosphorus	0.030
Copper	0.300

MECHANICAL PROPERTIES

Tensile Strength	
84,500 PSI	580 MPA
Yield Strength	
58,000 PSI	400 MPA
Elongation	35%

WELDING PARAMETERS

a)	<u>MIG WELDING:</u>	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)	<u>TIG WELDING:</u>	Direct Current; Electrode -Ve
	Shielding Gas	100% Argon
	Gas Flow	30 to 40 CFH
c)	<u>SUB-ARC WELDING:</u>	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.