



309LSi

DESCRIPTION: Weldcote Metals 309LSi is of the same chemical composition as 309L, with higher silicon content to improve the bead appearance and increase welding ease. The weld beads are exceptionally smooth due to good wetting.

APPROVALS: Manufactured under Quality System approved by ASME, IS09001. Meets AWS 5.9 Class ER309LSi. Approved by Canadian Welding Bureau.

CHEMICAL COMPOSITION

Carbon	0.030
Manganese	1.000-2.500
Silicon	0.650-1.000
Chromium	23.000-25.000
Nickel	12.000-14.000
Sulfur	0.020
Phosphorus	0.030
Molybdenum	0.300
Copper	0.300

MECHANICAL PROPERTIES

Tensile Strength	
89,500 PSI	620 MPA
Yield Strength	
60,500 PSI	420 MPA
Elongation	
35%	

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.