

# TECHALLOY 308LHS

I. **DESCRIPTION:** Techalloy 308L HiSil, a stainless steel welding wire for TIG, MIG, and submerged arc welding. This wire is used to weld equipment made with 304 and 308 stainless grades. Welding speed is higher than 308 or 308L due to improved wettability of weld metal.

II. **APPROVALS:** Manufactured under Quality System approved by ASME, ISO9001. Meets AWS 5.9 Class ER308LSi. Approved by Canadian Welding Bureau.

III. **CHEMICAL COMPOSITION**

Carbon	.016
Manganese	1.65
Silicon	.85
Chromium	20.65
Nickel	10.00
Sulfur	.008
Phosphorus	.016

**MECHANICAL PROPERTIES**

<b>Tensile Strength</b>	
86,500 PSI	600 MPA
<b>Yield Strength</b>	
59,000 PSI	410 MPA
<b>Elongation</b>	
39%	

IV. **WELDING PARAMETERS**

- a) **MIG WELDING:** Direct current; Electrode +Ve  
Shielding Gas 98/99% Argon + 2/1% Oxygen  
97% Argon + 3% CO<sub>2</sub>  
Gas Flow 30 to 50CFH  
Voltage 29 to 33  
Amperage 160/180 for .035" (0.9mm)  
180/220 for .045" (1.14mm)  
210/250 for .062" (1.6mm)
- b) **T.I.G. 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.

V. **STANDARD PACKAGES:**

**MIG Wire** -30# spools; **TIG Wire** -10# Tubes; **SAW**-60# coils