



# **SUPER DUPLEX**

### **Key Features**

Excellent resistance to stress corrosion cracking in chloride-bearing environments

**Excellent resistance to pitting and crevice corrosion** High resistance to general corrosion

#### **IMPORTANT**

We will manufacture to your required mechanical properties.

## key advantages to you, our customer



0.025mm to 21mm (.001" to .827")



Order 3m to 3t (10 ft to 6000 Lbs)



Delivery: within 3 weeks



Wire to your spec



E.M.S available



Technical support

### SUPER DUPLEX available in:-

- Round wire
- Bars or lengths
- Flat wire
- Shaped wire
- Rope/Strand

### **Packaging**

- Coils
- Spools
- Bars or lengths



### Technical Datasheet AWS 169 Rev.3





Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	ISO 15156-3	Excellent resistance to stress corrosion	Oil and gas exploration
С	-	0.03	(NACE MR 0175)  Designations	cracking in chloride-bearing environments  Excellent resistance to pitting and crevice corrosion	Marine application
Mn	-	1.2			
Si	-	0.80	W.Nr. 1.4410 UNS S32750 2507	High resistance to general corrosion	
S	-	0.015			
Р	-	0.035	AWS 169		
Cr	24.00	26.0			
Ni	6.0	8.0			
Мо	3.0	4.5			
N	0.24	0.35			
Cu	-	0.5			
Fe BAL					

Density	7.8 g/cm <sup>3</sup>	0.28 lb/in <sup>3</sup>	
Melting Point	1350 ℃	2460 °F	
Coefficient of Expansion	13.5 μm/m °C (25 – 100 °C)	7.5 x 10 <sup>-6</sup> in/in °F (70 – 200 °F)	
Modulus of Rigidity	77 kN/mm²	11000 ksi	
Modulus of Elasticity	200 kN/mm²	29000 ksi	

Heat Treatment of Finished Parts							
Condition as supplied by Alloy Wire	Type	Temperature		Time (Uv)	Cooling		
Condition as supplied by Alloy Wire	Туре	°C	°F	Time (Hr)	Cooling		
Annealed or Spring Temper	Stress Relieve	250	480	1	Air		

Properties							
Canditian	Approx. tensile strength		Approx. operating temperature				
Condition	N/mm²	ksi	°C	°F			
Solution Annealed	<1100	<159	-200 to +300	-330 to +570			
Spring Temper	1300 – 1900	189 – 276	-200 to +300	-330 to +570			

The above tensile strength ranges are typical. If you require different please ask.  $\label{eq:continuous}$