



DUPLEX 2205

Key Features

- Greater corrosion resistance than stainless steel 300 series
- Greater pitting resistance and uniform corrosion resistance to stress corrosion cracking than stainless steel 300 series
- Good weldability

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

DUPLEX 2205 available in:-

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

Packaging

- Coils
- Spools
- Bars or lengths



DUPLEX 2205



Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	ASTM A479 ISO 15156-3 (NACE MR 0175)	Greater corrosion resistance than stainless steel 300 series Greater pitting resistance and uniform corrosion resistance to stress corrosion cracking than stainless steel 300 series Good weldability	Chemical processing Oil and gas refining Marine environments Pollution control equipment
C	-	0.03			
Si	-	1.00	Designations W.Nr. 1.4462 UNS S31803 2205 AWS 167		
Mn	-	2.00			
P	-	0.035			
S	-	0.015			
Cr	21.00	23.00			
Ni	4.50	6.50			
Mo	2.50	3.50			
N	0.10	0.22			
Fe	BAL				

Density	7.8 g/cm ³	0.282 lb/in ³
Melting Point	1470 °C	2680 °F
Coefficient of Expansion	13.7 µm/m °C (21 – 100 °C)	7.61 x 10 ⁻⁶ in/in °F (70 – 212 °F)
Modulus of Rigidity	76.9 kN/mm ²	11154 ksi
Modulus of Elasticity	200 kN/mm ²	29008 ksi

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

Properties				
Condition	Approx. tensile strength		Approx. operating temperature	
	N/mm ²	ksi	°C	°F
Solution Annealed	< 1000	< 145	-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.