



## HAYNES<sup>™</sup> 282

### Key Features

New alloy developed for high temperature structural applications which has excellent creep strength in the temperature range of 650 – 930 °C (1200 – 1700 °F), supposedly surpassing that of Waspaloy, and approaching that of Rene 41

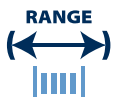
Excellent creep strength

\*\*High temperature static applications

### 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

### HAYNES<sup>™</sup> 282 available in:-

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

### Packaging

- Coils
- Spools
- Bars or lengths



\*Trade name of Haynes International.

# HAYNES<sup>®</sup> 282



Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	-	New alloy developed for high temperature structural applications which has excellent creep strength in the temperature range of 650 – 930 °C (1200 – 1700 °F), supposedly surpassing that of Waspaloy, and approaching that of Rene 41  Excellent creep strength  **High temperature static applications	Exhaust nozzle components in augmented aircraft gas turbines, hot gas paths in land based gas turbines  A potential choice for high temperature development parts
Al	1.38	1.65	<b>Designations</b>  UNS N07208 AWS 062		
B	0.003	0.010			
C	0.04	0.08			
Nb/Cb	-	0.20			
Co	9.00	11.00			
Cr	18.50	20.50			
Cu	-	0.10			
Fe	-	1.50			
Mn	-	0.30			
Mo	8.00	9.00			
Ni	BAL				
P	-	0.015			
S	-	0.015			
Si	-	0.15			
Ta	-	0.10			
Ti	1.90	2.30			
W	-	0.50			

<b>Density</b>	8.27 g/cm <sup>3</sup>	0.300 lb/in <sup>3</sup>
<b>Melting Point</b>	1300 – 1375 °C	2370 – 2510 °F
<b>Coefficient of Expansion</b>	12.1 µm/m °C (20 – 100 °C)	6.7 x 10 <sup>-6</sup> in/in °F (70 – 212 °F)

Heat Treatment of Finished Parts					
Condition as supplied by Alloy Wire	Type	Temperature		Time (Hr)	Cooling
		°C	°F		
Annealed or Spring Temper	Stablize	1010	1850	2	Air
	Age Harden	790	1450	8	Air

Properties				
Condition	Approx. tensile strength		Approx. operating temperature depending on load** and environment	
	N/mm <sup>2</sup>	ksi	°C	°F
Annealed	800 – 1200	116 – 174	Contact AWI Technical department	
Spring Temper	1300 – 1600	190 – 232		
Spring Temper + Stabilised and Aged	1000 – 1300	145 – 190		

The above tensile strength ranges are typical. If you require different please ask.

\*\*Static applications = still/fixed/motionless/rigid