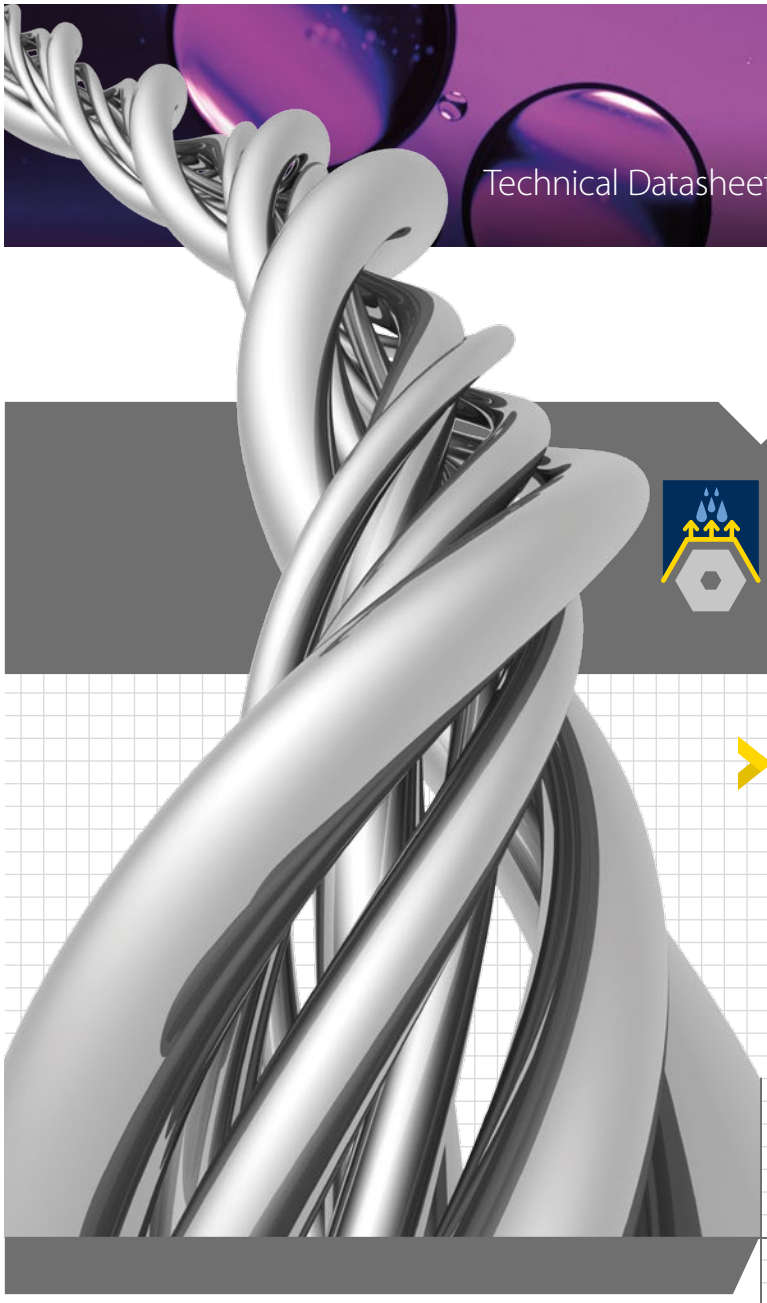
alloy wire international



STAINLESS STEEL 321

Key Features

Similar composition to 304 Stainless Steels but with addition of Titanium

Good creep and oxidation resistance make this a cost effective material for a number of applications

IMPORTANT
We will manufacture to your required mechanical properties.

key advantages to you, *our customer*

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

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

DELIVERY 3 WEEKS
Delivery:
within 3 weeks

Wire to your spec

E.M.S available

HOW CAN I HELP?
Technical support

STAINLESS STEEL 321 available in:-

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

Packaging

- Coils
- Spools
- Bars or lengths

Technical Datasheet **AWS 133 Rev.1**

STAINLESS STEEL 321

alloy wire international

Chemical Composition		
Element	Min %	Max %
C	-	0.08
Mn	-	2.00
P	-	0.04
S	-	0.03
Si	0.40	1.00
Cr	17.00	19.00
Ni	9.50	12.00
N	-	0.10
Mo	-	0.50
Ti	5 x C	0.70
Fe	BAL	

Specifications

ASTM A313
ASTM A240
ASTM A479
BS EN 10088-3:2014

Designations

W.Nr. 1.4541
UNS S32100
AWS 133

Key Features

Similar composition to 304 Stainless Steels but with addition of Titanium

Good creep and oxidation resistance make this a cost effective material for a number of applications

Typical Applications

Refinery Equipment
Heat Exchangers
Engineered components
Food Processing
Waste Treatment

Density	8.03 g/cm^3	0.29 lb/in^3
Melting Point	1370 °C	2500 °F
Coefficient of Expansion	16.6 µm/m °C (20 – 100 °C)	9.2 x10^{-6} in/in °F (70 – 212 °F)
Modulus of Rigidity	78 kN/mm^2	11300 ksi
Modulus of Elasticity	193 kN/mm^2	28000 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	450	840	1	Air

Properties				
Condition	**Approx. tensile strength**		**Approx. operating temperature**	
	N/mm^2	**ksi**	**°C**	**°F**
Annealed	600 – 800	87 – 116	-200 to +300	-330 to +570
Spring Temper	1300 – 2200	189 – 319	-200 to +300	-330 to +570

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

Narrowboat Way, Hurst Business Park, Brierley Hill, West Midlands, DY5 1UF, UK
t +44 (0)1384 262022 e sales@alloywire.com w alloywire.com