

321 Stainless

Smiths Advanced Metals

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Titanium Stabilised Stainless Tube

Offering intergranular corrosion resistance.

321 stainless steel is similar to Type 304 but with greater levels of carbon and titanium. The inclusion of titanium makes the alloy more resistant to carbide precipitation at elevated temperatures.

321 is often referred to as a heat resistant grade because good corrosion resistance and strength characteristics are maintained even at elevated temperature levels. As 321 is austenitic, toughness and overall strength levels are maintained at cryogenic temperatures. The material also offers good weldability with superior creep and stress rupture capabilities when compared to Type 304 and 304L. The alloy finds use in demanding applications where high temperatures are present and include exhaust stacks, expansion joints, engine manifolds and oil refinery equipment.

Smiths Advanced Metals stocks 321 stainless steel tubes in seamless or welded form. Tubes from grade 321 are available in various sizes. We also provide a tube cutting service where we supply your tubular products to exact lengths.



Grades / Specifications

- AMS5557
- AMS5570
- MILT8808
- ASTMA213
- ASTMA269
- ASTMA312

Benefits

- High mechanical strength
- Good formability
- Good weldability
- Resistant to intergranular corrosion

* Chemical Composition (weight %)

	C	Mn	Si	P	S	Cr	Ni	N	Ti	Mo	Cu
min.			0.25			17.00	9.00		5x(C+N)		
Max.	0.08	2.00	1.00	0.040	0.030	19.00	12.00	0.10	0.70	0.75	0.75

* As per AMS 5570

* Mechanical Properties

Tensile Strength	517 - 724MPa
0.2% Yield	207 MPa min
Elongation	35% min

Physical Properties

Density	8.09 kg/m ³
Melting Point	1400 °C
Modulus of Elasticity	193 GPa
Electrical Resistivity	0.074 x10 ⁻⁶ Ω.m
Thermal Conductivity	16.1 W/m.K

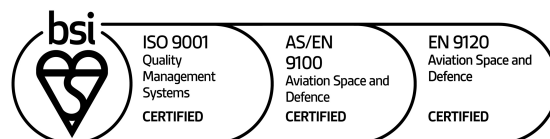
* Properties as per AMS 5570, OD over 12.70mm Wall thickness over 0.25mm.

www.smithsadvanced.com

info@smithsadvanced.com



Unit 5 Percy Road,
Huntingdon,
Cambridgeshire PE29 6SZ
Tel: +44 (0) 1767 604710



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