

AMS 5754, AMS 5798 - NICKEL ALLOY X BAR

Alloy X is an austenitic nickel base alloy containing approximately 22 percent chromium for outstanding resistance to oxidation at high temperatures. In addition, the alloy, which is solid solution strengthened, possesses exceptional strength at elevated temperatures. The alloy (AMS 5798, AMS 5754) has good high temperature and stress rupture properties above 1450°F and can be used for applications up to 2200°F. In addition Alloy X contains high levels of nickel and molybdenum providing good levels of corrosion resistance similar to high nickel alloys more customarily used in corrosion applications.

Specific Gravity															
8.22 g/cm ³															
Typical Applications								Related Specifications							
Gas Turbine engine components								AMS 5754 AMS 5798 UNS N06002 ASTM B572							
Chemical Composition (Wt %)															
	Cr	Mo	Co	W	Al	Ti	B	C	Fe	Mn	Si	P	S	Cu	Ni
Min	20.5	8	0.5	0.2	–	–	–	0.05	17	–	–	–	–	–	–
Max	23	10	2.5	1.0	0.5	0.15	0.01	0.15	20	1.0	1.0	0.04	0.03	0.5	Bal
Typical Mechanical Properties															
										0.2% Proof Stress	Tensile Strength	Elongation			
										MPA	MPA	MPA			
Temp deg f															
70										379	765	44			
1000										284	702	49			

1200	276	654	54
1400	268	529	53
1600	221	355	58

* This data has been supplied in good faith and is indicative only. It has been provided for general information purposes only and is not to be relied upon in place of the full specification. Mechanical properties can vary considerably with different supply conditions such as heat treatment or temper and product dimensions.

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General Enquiries

T: +44 (0) 1525 217 556 [\(tel:+4401525217556\)](tel:+4401525217556)

E: sales@dynamicmetalsltd.com [\(mailto:sales@dynamicmetalsltd.com\)](mailto:sales@dynamicmetalsltd.com)



UK Address:

Head Office

40 Eden Way
Chartwell Business Park
Leighton Buzzard
Bedfordshire
LU7 4FY

T: +44 (0)1525 217 556 [\(tel:+441525217556\)](tel:+441525217556)

Conversion Centre

Suite 2 Meadowhall Riverside
Meadowhall Road
Sheffield
South Yorkshire
S9 1BW

T: +44 (0)1143 030 320 [\(tel:+4401143030320\)](tel:+4401143030320)

Registered Office (only)

The Granary
Crowhill Farm Ravensden Road
Wilden
Bedfordshire
MK44 2QS

T: +44 (0)1525 217 556 [_tel:+441525217556](tel:+441525217556)



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