

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.

No liability will be accepted by Dynamic Metals Ltd in respect of any action taken by any third party in reliance of any of the data provided.

The information provided in this datasheet has been taken from multiple recognised sources. No guarantee is given that the information is from the latest issue of these sources and no guarantee is given that the information in the datasheet is accurate or up to date.

Material supplied by Dynamic Metals Ltd may vary significantly from this data but will conform to the relevant and applicable standards. All transactions are subject to Dynamic Metals Ltd latest Terms and Conditions of Sale.

As the products detailed may be used for a wide variety of purposes and as Dynamic Metals Ltd has no control over their use; Dynamic Metals Ltd specifically excludes all conditions or warranties expressed or implied by statute or otherwise as to dimensions, properties and/or fitness for any particular purpose, whether expressed or implied.

Advice given by Dynamic Metals Ltd to any third party is given for that party's assistance only and without liability on the part of Dynamic Metals Ltd.

All transactions are subject to Dynamic Metals Ltd latest Terms and Conditions of Sale. The extent of the Company's liabilities to any customer is clearly set out in those Conditions; a copy of which is available by request or by downloading from our website.

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)



[\(/media/zn2dbklo/cyber-essentials-certified-plus.png\)](#)



[\(/media/dyelbliq/cyber-essentials-certified.png\)](#)