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AM HX Data sheet

AM X is one of the most widely used nickel base superalloys for gas turbine engine components. This solid solution strengthened grade has good strength and oxidation resistance to 2000°F

Alloy Highlights

Good high temperature strength
 Carburization resistant
 Good Oxidation Resistance

Typical Applications

Combustion liners
 Turbine exhaust components
 Aircraft cabin heaters
 Transition Ducts

| Mechanical Properties (as Sintered) | | |
|-------------------------------------|--------------|--------------|
| Test | Horizontal | Vertical |
| Tensile Strength | 123 +/-5 ksi | 104 +/-5 ksi |
| Yield Strength | 98 +/-7 ksi | 83 +/-7 ksi |
| Elongation at break | 30 +/-7 % | 46 +/-5 % |
| Hardness (HBW) | | 176 |
| Density (lb/in ³) | | 0.294 |

| Chemistry | | |
|-----------|-----------|-------|
| Element | Range (%) | |
| | Min | Max |
| Al | | 0.5 |
| B | | 0.01 |
| C | | 0.10 |
| Co | 0.5 | 2.5 |
| Cr | 20.5 | 23.0 |
| Cu | | 0.5 |
| Fe | 17.0 | 20.0 |
| Mn | | 1.0 |
| Mo | 8.0 | 10.0 |
| Ni | Balance | |
| P | | 0.04 |
| S | | 0.03 |
| Se | | 0.005 |
| Si | | 1.0 |
| Ti | | 0.15 |
| W | 0.2 | 1.0 |

Applicable Chemistry Specifications

AMS 5536 AMS 5754 AMS 5798
 EN 2.4665 UNS N06002 ASME SB 435
 ASME B 572 ASTM B435 ASTM B 572