

# **ALLOY 6230**

AMS 5878 / UNS 6230

Alloy 6230 is a nickel-chromium-tungsten-molybdenum alloy. This grade is known for its excellent high temperature strength, long term stability resistance to oxidizing environments up to 2100°F. Alloy 6230 exhibits good resistance to carburization. This grade excels in creep and fatigue resistance at high temperatures and due to lower thermal expansion characteristics it resists grain coarsening when exposed to high temperatures for long periods of time. Alloy 6230 combines excellent high temperature strength and fabricability at room temperature.

### **Nominal Composition %**

- cr Chromium 20 min / 24 max
- co Cobalt 5.0 max
- Fe Iron 3.00 max
- Molybdenum 1.00 / 3.00 max
- Cu Copper .50 max
- Mn Manganese .30 min / 1.0 max
- P Phosphorous .25 min / .75 max
- Silicon .25 min / .75 max
- Al Aluminum .20 min / .50 max
- Ti Titanium 0.10
- Carbon .05 / .15 max
- B Boron .015 max
- Sulfur .015 max
- Lanthanum .005 min/0.05 max
- Ni Nickel Remainder

Percent by weight, maximum unless a range is listed.

## **Standard Inventory Specifications**

- AMS 5878
- ASME SB 435
- ASTM B 435
- UNS 6230

#### **Forms Stocked**

- Coils
- Slit Coils
- Cut-to-length
- Precision sheared blanks

#### **Thickness Stocked**

• 0.04 - .125 thick

#### **Applications**

- Gas turbine components
- Heat treat baskets / trays / furnace retorts
- High temperature bellows
- Chemical Processing components
- Flame holders
- Combustion cans
- Dampers
- Domestic produced materials



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#### **Industries**

- Aerospace
- Power Generation
- Industrial heating
- Heat treating
- Chemical Processing

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For plate products: <a href="mailto:sourcing@upmet.com">sourcing@upmet.com</a>

# **Physical Properties**

Properties	Value
Density	0.324 lb/in³ (8.97 g/cm³)
Specific Gravity	7.92
Melting Range	2375 – 2500°F (1300-1374°C)
Heat Treatment	Cannot be hardened by heat treating
Tensile	115 min. Mpa 793
Yield Strength	50 ksi min Mpa 345 min
Elongation	40%