



ASM Aerospace Specification Metals Inc.



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## Carpenter AerMet 100, 875°F Aged

**Subcategory:** Alloy Steel; Ferrous Metal; Metal; Tool Steel

**Close Analogs:** UNS K92580

Component	Wt. %
C	0.23
Co	13.4
Cr	3.1
Fe	70.97
Mo	1.2
Ni	11.1

### Material Notes:

An alloy providing high hardness and strength combined with exceptional ductility and toughness. This alloy should be considered for aircraft and aerospace structural components requiring high strength, high fracture toughness and exceptional stress corrosion cracking resistance. AerMet 100 may be considered for use up to about 800°F (427°C). This alloy is not subject to the same restrictions as AF1410, thus may be considered a substitute.

Physical Properties	Metric	English	Comments
Density	<u>7.89 g/cc</u>	0.285 lb/in <sup>3</sup>	

### Mechanical Properties

Tensile Yield Strength	<u>1780 MPa</u>	258000 psi	
Elongation at Break	<u>14.2 %</u>	14.2 %	
Reduction of Area	<u>63.8 %</u>	63.8 %	
Fatigue Strength	<u>945 MPa</u>	137000 psi	10 <sup>7</sup> cycles, R=-1, Kt=1
Fracture Toughness	<u>108.454 MPa-m<sup>1/2</sup></u>	98.7 ksi-in <sup>1/2</sup>	

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error.