

AERONAUTICAL MATERIAL SPECIFICATIONS

AMS 7725

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York 17, N.Y.

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Revised

ALLOY, SINTERED, HIGH DENSITY
Tungsten Base

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. FORM: Sintered shapes.
3. APPLICATION: Primarily for parts, such as counter-balance weights, requiring maximum weight per unit volume.
4. COMPOSITION: Shall be a metallic alloy containing principally tungsten and other alloying elements in such proportions as to meet the technical requirements.
5. CONDITION: As sintered, unless otherwise specified.
6. TECHNICAL REQUIREMENTS:
 - 6.1 Tensile Properties: Specimens cut from parts having sections 2 in. and under shall conform to the following requirements:

Tensile Strength, psi	80,000 min
Yield Strength at 0.2% Offset, psi	70,000 min
Elongation, % in 4D	1 min
 - 6.1.1 Tensile properties for specimens cut from parts having sections over 2 in. shall be as agreed upon by purchaser and vendor.
 - 6.2 Hardness: Material shall have hardness of Rockwell C 20 - 30 or equivalent.
 - 6.3 Density: Material shall weigh 16.7 - 17.2 g per cubic centimeter.
 - 6.3.1 Forms of large section or formed parts weighing more than 2500 g may have density as low as 16.5 g per cubic centimeter.
 - 6.4 Microstructure: Shall be uniform and homogeneous at 200X magnification.
7. QUALITY: Material shall be uniform in quality and condition, clean, sound, and free from foreign material and from internal and external imperfections detrimental to fabrication or to performance of parts.
8. REPORTS:
 - 8.1 Unless otherwise specified, the vendor of the product shall furnish with each shipment three copies of a report showing the results of tests on each powder batch represented in the shipment to determine conformance to the requirements of this specification. This report shall include the purchase order number, material specification number, form, size or part number, and quantity.