

## MarkeTech 97-2-1 Tungsten Alloy, AMS-T-21014 Class 4

Category : Metal , Nonferrous Metal , Refractory Metal , Tungsten Alloy

### Material Notes:

Used to fabricate parts to near net size and several processes to produce high quality tungsten based materials. Tungsten heavy alloys have very high melting point and have a density twice that of steel and are more than 50% heavier than lead. Due to their high density, tungsten alloys offer greater radiation shielding than lead and are non-toxic. Tungsten alloys are electrically and thermal conductive and offer good corrosion resistance. They also have a low coefficient of expansion and have a high modulus of elasticity. Because of these unique properties tungsten alloys are used extensively in military applications, balance weights, aircraft components, nuclear and medical shields, fishing and sport tackle, rocket components, tool vibration dampers, electrical contacts, etc. Applications: Nuclear and medical radiation shielding for x-ray and shields for radiation therapy and industrial applications. Aircraft and helicopter rotor balance weights Instrument balance weights Weights for sport equipment Tool damping cutter bars High voltage contacts Information provided by MarkeTech International.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_MarkeTech-97-2-1-Tungsten-Alloy-AMS-T-21014-Class-4.php](http://www.lookpolymers.com/polymer_MarkeTech-97-2-1-Tungsten-Alloy-AMS-T-21014-Class-4.php)

Physical Properties	Metric	English	Comments
Density	18.5 g/cc	0.668 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell C	28 - 36	28 - 36	Sintered Only
	37 - 47	37 - 47	Swaged after Sintering
Tensile Strength, Ultimate	920 - 1100 MPa	133000 - 160000 psi	Sintered Only
	1200 - 1300 MPa	174000 - 189000 psi	Swaged after Sintering
Tensile Strength, Yield	750 - 1050 MPa	109000 - 152000 psi	Swaged after Sintering
Elongation at Break	2 - 7 %	2 - 7 %	Swaged after Sintering
	6 - 13 %	6 - 13 %	Sintered Only
Impact	7	7	J/cm <sup>2</sup> ; Swaged after Sintering
	14	14	J/cm <sup>2</sup> ; Sintered Only

Component Elements Properties	Metric	English	Comments
Iron, Fe	1 %	1 %	
Nickel, Ni	2 %	2 %	
Tungsten, W	97 %	97 %	

## **Contact Songhan Plastic Technology Co.,Ltd.**

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