

Technical Data: MIM-Tungsten Alloys*

Product Description

Discover high-performance Tungsten alloy materials for MIM applications. Please choose from our range of precision-engineered alloys, including Tungsten-Nickel-Iron (W-Ni-Fe), Tungsten-Nickel-Copper (W-Ni-Cu), Tungsten-Copper (W-Cu), Tungsten-Nickel-Cobalt (W-Ni-Co), and Tungsten-Iron (W-Fe). Achieve optimal density, strength, and conductivity for diverse industries. Trust in Neway's expertise to deliver customized solutions that excel in your specific project requirements. Elevate your innovations with our advanced Tungsten alloys.

Features and Applications

Grade	Features	Applications
MIM W-Ni-Fe	High density, strength & corrosion resistance	Aerospace components, radiation shielding
MIM W-Ni-Cu	High density, radiation resistance & wear resistance	Medical collimators, shielding materials
MIM W-Cu	High thermal & electrical conductivity	Electronic packaging, heat sinks
MIM W-Ni-Co	High strength, corrosion resistance	Aerospace components, balance weights
MIM W-Fe	Balance of density, strength & cost-effectiveness	Automotive components, sporting goods

Chemical Composition

Element	Tungsten (W)	Nickel (Ni)	Copper (Cu)	Iron (Fe)	Cobalt (Co)
MIM W-Ni-Fe	89.5-93.5%	5.5-7.5%	-	1.0-2.5%	-
MIM W-Ni-Cu	90.0-92.5%	4.5-6.0%	1.0-3.0%	-	-
MIM W-Cu	90.0-92.0%	-	8.0-10.0%	-	-
MIM W-Ni-Co	85.0-89.0%	5.0-7.0%	-	-	5.0-8.0%
MIM W-Fe	85.0-90.0%	-	-	10.0-15.0%	-

Physical and Mechanical

Alloys	Status	Tensile Strength	Yield Strength	Impact Strength	Hardness	Young's Modulus	Poisson's Ratio	Elongation	Density
		Mpa	Mpa	J	HRC	Gpa	Ratio	% in 25.4 mm	g/cm ³
MIM W-Ni-Fe	As Sintered	800	600	25	30	320	0.28	5	17
MIM W-Ni-Cu	As Sintered	850	650	30	35	300	0.26	6	16.5
MIM W-Cu	As Sintered	900	700	35	40	340	0.25	7	16
MIM W-Ni-Co	As Sintered	820	620	28	32	330	0.27	5.5	17.5
MIM W-Fe	As Sintered	780	590	24	29	310	0.29	4.5	17.2

Note

The above data are reference material science data. This data reference is not binding and is not considered as authoritative test data. If your material requirements are extremely precise, please contact our material engineers. Tel | +86 18926788217 | Web | www.newayprecision.com | Contact Neway

