

INCONEL 600 SPRING WIRE

Inconel 600 is a spring quality, cold drawn wire made from a nickel base. It provides good corrosion resistance at operating temperatures up to 700°F. The alloy also has excellent mechanical properties and presents the desirable combination of high strength and good workability. The high nickel content gives the alloy resistance to corrosion by many organic and inorganic compounds and also makes it virtually immune to chloride stress-corrosion cracking. The alloy is not precipitation hardenable; it is hardened and strengthened only by cold working per ASTM-B-166.

Chemical Composition	%	Thickness Tolerances < 6" AMS2242	Tolerance (inch)
Nickel ¹	72.0 min	Up to .0044 included	+ / - .0002
Chromium	14.0 – 17.0	Over .0044 to .0079 included	+ / - .00025
Iron	6.0 – 10.0	Over .0079 to .0149 included	+ / - .0003
Manganese	1.0 max	Over .0149 to .0199 included	+ / - .0004
Copper	.50 max	Over .0199 to .031 included	+ / - .0005
Carbon	.15 max	Over .031 to .045 included	+ / - .0006
Silicon	.50 max	Over .045 to .079 included	+ / - .007
Sulfur	.015 max	Over .079 to .1875 included	+ / - .0010
		Over .1875 to .406 included	+.001 / - .002
		Over .406 to .499 included	+ / - .002
		Over .499 to .563 included	+ .0025 / - .003

¹ Cobalt counting as Nickel

Diameter Inch.	Tensile Min PSI
Up to .057 included	185,000
Over .057 to .114 included	175,000
Over .114 to .229 included	170,000
Over .229 to .329 included	165,000
Over .329 to .375 included	160,000
Over .375 to .500 included	155,000
Over .500 to .563 included	140,000

The above charts are intended to provide general background information. You should also review the appropriate material specification. Please contact Gibbs Interwire if you have any questions.

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