

TYPE 316 STAINLESS STEEL WIRE

Similar in composition to Type 302, Type 316 stainless steel wire has a slightly higher nickel content and 2 - 2.5% molybdenum giving this alloy better corrosion resistance. Type 316's tensile strength is 10 - 15% lower than that of Type 302, and the alloy is slightly less magnetic in the spring temper than Type 302. With its superior cold working properties, it can be used for severe cold forming operations and exhibits short time tensile and creep strength properties at elevated temperatures. Gibbs Interwire Type 316 stainless steel wire is coated for coiling and conforms to ASTM A313. All sizes are suitably coated for automatic coiling.

Chemical Composition Per ASTM-A-313					
Carbon	.070%	Sulfur	.030%	Nickel	10.50 – 13.50%
Manganese	2.00%	Silicon	1.00%	Molybdenum	2.00 – 2.50%
Phosphorus	.045%	Chromium	16.50 – 18.00%	Nitrogen	.10%

TENSILE STRENGTH TABLE (ASTM-A-313)

Diameter Inch	Tensile Min PSI	Tensile Max PSI	Diameter Inch	Tensile Min PSI	Tensile Max PSI
.009	245,000	275,000	.041 - .047 incl.	230,000	260,000
.009 - .010 incl.	245,000	275,000	.047 - .054 incl.	225,000	255,000
.010 - .011 incl.	240,000	240,000	.054 - .062 incl.	220,000	250,000
.012 - .013 incl.	240,000	240,000	.062 - .072 incl.	215,000	245,000
.013 - .014 incl.	240,000	240,000	.072 - .080 incl.	210,000	240,000
.014 - .015 incl.	240,000	240,000	.080 - .092 incl.	205,000	235,000
.015 - .016 incl.	235,000	265,000	.092 - .105 incl.	200,000	230,000
.016 - .017 incl.	235,000	265,000	.105 - .120 incl.	195,000	225,000
.017 - .018 incl.	235,000	265,000	.120 - .148 incl.	185,000	215,000
.018 - .019 incl.	235,000	265,000	.148 - .166 incl.	180,000	210,000
.019 - .020 incl.	235,000	265,000	.166 - .177 incl.	170,000	200,000
.020 - .022 incl.	235,000	265,000	.177 - .208 incl.	160,000	190,000
.022 - .024 incl.	235,000	265,000	.207 - .225 incl.	155,000	185,000
.024 - .026 incl.	235,000	265,000	.225 - .250 incl.	150,000	180,000
.026 - .028 incl.	235,000	265,000	.250 - .312 incl.	140,000	170,000
.028 - .032 incl.	235,000	265,000	.312 - .375 incl.	135,000	165,000
.032 - .036 incl.	235,000	265,000	.375 - .500 incl.	130,000	160,000
.036 - .041 incl.	235,000	265,000	.500 - over	125,000	155,000

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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