

TIN COATED MUSIC WIRE

Music wire is one of the best, toughest, and most widely used materials for small springs. It has one of the highest tensile strengths and can withstand higher stresses under repeated loading than other spring materials. The fatigue life of music wire is excellent. It is not recommended for temperatures below 0^o F or above 250^o F. Gibbs music wire meets the latest revisions of ASTM-A-228.

Micro-Tinned coating provides improved appearance with the equivalent of 1-3 hours salt spray corrosion resistance. This coating is a distinct improvement over the bright or white liquor finish wire.

Chemical Composition Per ASTM-A-228 *Max values		Dimensional Tolerances	Tolerance (inch)
Carbon	.70 ó 1.00%	.004 to .010 incl	+-.0002
Maganese	.20 - .70%	Over .010 to .028 incl.	+-.0003
Silicon	.10 - .30%	Over .028 to .063 incl.	+-.0004
Phosphorus, max	.025% *	Over .063 to .080 incl.	+-.0005
Sulfur, max.	.030% *		
Iron	Balance		

Tensile Strength Table (ASTM-A228 spec)

Dia. Inch	Tensile Min PSI	Tensile Max PSI	Dia. Inch	Tensile Min PSI	Tensile Max PSI	Dia. Inch	Tensile Min PSI	Tensile Max PSI
.004	439,000	485,000	.030	330,000	365,000			
.005	426,000	471,000	.032	327,000	361,000			
.006	415,000	459,000	.034	324,000	358,000			
.007	407,000	449,000	.036	321,000	355,000.			
.008	399,000	441,000	.038	318,000	352,000			
.009	393,000	434,000	.040	315,000	349,000			
.010	387,000	428,000	.042	313,000	346,000			
.011	382,000	422,000	.045	309,000	342,000			
.012	377,000	417,000	.048	306,000	339,000			
.013	373,000	412,000	.051	303,000	335,000			
.014	369,000	408,000	.055	300,000	331,000			
.015	365,000	404,000	.059	296,000	327,000			
.016	362,000	400,000	.063	293,000	324,000			
.018	356,000	393,000	.067	290,000	321,000			
.020	350,000	387,000	.072	287,000	317,000			
.022	345,000	382,000	.076	284,000	314,000			
.024	341,000	377,000	.080	282,000	312,000			
.026	337,000	373,000						
.028	333,000	368,000						

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