

## OIL TEMPERED CHROME SILICON WIRE VALVE SPRING QUALITY

These materials are designed for springs that must withstand considerable shock and extreme heat. Chrome silicon can be used at temperatures up to 50°F higher than chrome vanadium. Valve spring quality chrome silicon has been eddy current tested to assure the finest possible surface in keeping with automotive industry requirements. Wire is available in size ranges from .021" - .312".

Chemical Composition Per ASTM-A-877		Dimensional Tolerances	Tolerance (inch)
Carbon	.510 - .590%	.020 to .075, included	+ / - .008
Manganese	.500 - .800%	Over .075 to .148, included	+ / - .001
Phosphorus	.025% max	Over .148 to .375, included	+ / - .0015
Sulfur	.025% max		
Silicon	1.20 – 1.60%		
Chromium	.600 - .800%		

## TENSILE STRENGTH TABLE (ASTM-A-877)

Diameter Inch	Tensile Min PSI	Tensile Max PSI	Diameter Inch	Tensile Min PSI	Tensile Max PSI
.020	305,000	330,000	.177	265,000	285,000
.040	300,000	325,000	.200	263,000	283,000
.060	295,000	320,000	.225	260,000	280,000
.080	290,000	310,000	.250	255,000	275,000
.120	280,000	300,000	.312	250,000	270,000
.148	275,000	295,000	.375	245,000	265,000

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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