

GH
S
S
T
R
I
N
G
S



GHS STRINGS
PLAY WITH THE BEST™

Acoustic Guitar String Guide

Updated April 2017

Table of Contents

Introduction	pg. 2
String Tension - A Primer	pg. 2
How to Calculate Tension	
Frequency Chart	
Other Considerations	pg. 2
Winding Technique	
String Materials	
String Geometry	
String Tension Charts	pg. 3
Bright Bronze™	pg. 3
Contact Core™ Bright Bronze™	pg. 4
Bright Bronze™ Rollerwound	
Ground Phosphor Bronze	
Phosphor Bronze	pg. 5
Signature Bronze™	pg. 6
Infinity Bronze™	pg. 7
White Bronze™	pg. 8
Silk and Steel	pg. 9
Silk and Bronze	
Vintage Bronze™	pg. 10
Plain Steel Strings	pg. 11
Final Thoughts	pg. 11

Introduction

Whether you are a luthier, a repair tech, or someone looking to find your “ideal” set for your application, string tension will play a role. It is with this in mind that we at GHS have put together our Acoustic Guitar String Guide, as a way to help you find the information you are looking for to help you in whatever role you fall.

How to Calculate Tension

String tension is the amount of force a string has when tuned to a specific pitch. To find out the tension of a particular string, you need three variables: the **Unit Weight**, the **Scale Length**, and the **Frequency or Pitch** of the string you will be using. We have taken the time to provide you with a comprehensive list of all of our current acoustic guitar strings, in single strings as well as in our pre-packaged sets. The formulas used to this end are the industry standard, and can be used to approximate other string tensions.

For those guitarists that prefer to use altered - or down - tunings, we present our tension guide in such a way as to help facilitate your endeavors, to make choosing the ideal set of strings for your application much easier.

- UW** **UNIT WEIGHT:** The weight of the string, measured in pounds per linear inch (lb/in).
- L** **SCALE LENGTH:** The vibrating length of a string. Measure the distance from the nut to the bridge of the instrument to find the scale length. **GHS has used the 25.4” scale length** in the enclosed guide. Your individual instrument may vary.
- F** **FREQUENCY or PITCH:** The specific pitch at which each note is expressed, represented in cycles per second (Hertz).

To calculate the tension of a particular string in pounds, use the formula below, inserting the three needed variables.

$$T (\text{Tension}) = (UW \times (2 \times L \times F)^2) / 386.4$$

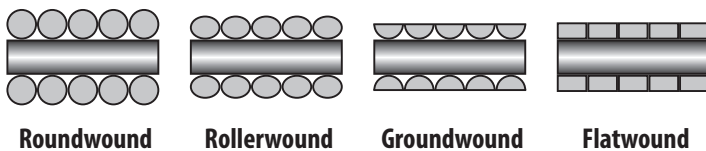
For those looking for a specific tension, you can use the formula below to get the unit weight for your particular needs. With that, compare the unit weight against the ones listed in the following pages to find the string gauge that meets your needs.

$$UW (\text{Unit Weight}) = (T \times 386.4) / (2 \times L \times F)^2$$

Other Considerations

A common misconception is that the tension of a string is the same as the feel of the string under your fingers. And while string tension plays a part, there are a number of other processes that will also have an affect on the tone and playability of a string.

Winding Techniques: There are four types of winding techniques used for strings. The type providing the brightest tone (all else being equal) is the roundwound string. Next is the rollerwound, followed by the groundwound (also called a halfwound) and finally a flatwound.



PLEASE NOTE: We have provided this guide as a reference of the tension of our strings at various pitches. Please use caution when making sets that have extremely high tensions, as the set as a whole may put undue stress on the neck, as well as snap the core of the strings prematurely.

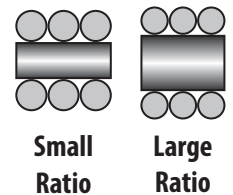
Frequency Chart

The chart below represents the frequency or pitch of each note, as it relates to the guitar fretboard. Standard tunings are shown in bold type; use the additional frequencies to calculate tension for strings when using altered tunings.

E2 82.4 Hz	A2 110.0 Hz	D3 146.8 Hz	G3 196.0 Hz	B3 246.9 Hz	E4 329.6 Hz	Nut / Open
F2 87.3 Hz	A#2 116.5 Hz	D#3 155.6 Hz	G#3 207.7 Hz	C4 261.6 Hz	F4 349.2 Hz	First Fret
F#2 92.5 Hz	B2 123.5 Hz	E3 164.8 Hz	A3 220.0 Hz	C#4 277.2 Hz	F#4 369.9 Hz	Second Fret
G2 98.0 Hz	C3 130.8 Hz	F3 174.6 Hz	A#3 233.1 Hz	D4 293.7 Hz	G4 392.0 Hz	Third Fret
G#2 103.8 Hz	C#3 138.6 Hz	F#3 185.0 Hz	B3 246.9 Hz	D#4 311.1 Hz	G#4 415.3 Hz	Fourth Fret
A2 110.0 Hz	D3 146.8 Hz	G3 196.0 Hz	C4 261.6 Hz	E4 329.6 Hz	A4 440.0 Hz	Fifth Fret

String Materials: The hardness of common materials used in the cover wire of strings affects both the tone and “feel” of a string. Usually, with all else remaining constant, the harder the material the brighter the string. Common cover wire materials include (ranked by order of brightness) stainless steel, Alloy 52, nickel plated steel, pure nickel, and for acoustics, brass and bronze.

String Geometry: “String Geometry” generally refers to the ratio of the core wire diameter to the cover wire diameter. These two parameters are utilized to come up with the final string gauge. All else remaining constant, a small core-to-cover ratio generally results in a string with greater flexibility and brighter tone. A larger core-to-cover ratio generally results in a string with greater volume, sustain, tone life and durability.



Bright Bronze™ - Tension

By Individual String



- 80/20 Copper Zinc Alloy
- Wound on a Hex Core Wire
- Retains the Richness of Bronze, with a Crisp Sparkle to the Finish

42" Overall Length Plain Steel, 38" Winding/40" Overall Length Wound Strings

Cat. No.	Unit Weight	G4	F#4	F4	E4	D#4	D4	C#4	C4	B3	A#3	A3	G#3	G3	F#3	F3	E3	D#3	D3	C#3	C3	B2	A#2	A2	G#2	G2	F#2	F2	E2	D#2	D2	C#2	C2	B1	A#1	A1	G#1		
008	.00001609	16.5	14.7	13.1	11.7	10.4	9.3	8.3																															
009	.00001810	18.6	16.5	14.7	13.1	11.7	10.4	9.3	8.3																														
010	.00002270	23.3	20.7	18.5	16.5	14.7	13.1	11.7	10.4	9.2	8.2																												
011	.00002950	30.3	27.0	24.0	21.4	19.1	17.0	15.1	13.5	12.0	10.7	9.5	8.5																										
012	.00003400	34.9	31.1	27.7	24.7	22.0	19.6	17.5	15.5	13.9	12.3	11.0	9.8	8.7																									
013	.00003860		35.3	31.4	28.0	25.0	22.2	19.8	17.7	15.7	14.0	12.5	11.1	9.9	8.8																								
013 1/2	.00004008		36.6	32.6	29.1	25.9	23.1	20.6	18.3	16.3	14.5	13.0	11.5	10.3	9.2	8.2																							
014	.00004770			34.6	30.8	27.5	24.5	21.8	19.4	17.3	15.4	13.7	12.2	10.9	9.7	8.7																							
015	.00005280				34.1	30.4	27.1	24.1	21.5	19.2	17.1	15.2	13.6	12.1	10.8	9.6	8.5																						
016	.00005900					34.0	30.3	27.0	24.0	21.4	19.1	17.0	15.1	13.5	12.0	10.7	9.5	8.5																					
017	.00006810						35.0	31.1	27.7	24.7	22.0	19.6	17.5	15.6	13.9	12.4	11.0	9.8	8.7																				
018	.00007270							37.3	33.2	29.6	26.4	23.5	20.9	18.7	16.6	14.8	13.2	11.8	10.5	9.3	8.3																		
BB18	.00007672						44.2	39.4	35.1	31.3	27.8	24.8	22.1	19.7	17.5	15.6	13.9	12.4	11.1																				
BB20	.00009339								42.7	38.0	33.9	30.2	26.9	24.0	21.4	19.0	16.9	15.1	13.5	12.0	10.7																		
BB22	.00010530									42.9	38.2	34.0	30.3	27.0	24.1	21.4	19.1	17.0	15.2	13.5	12.0	10.7																	
BB24	.00011360										41.2	36.7	32.7	29.2	26.0	23.1	20.6	18.4	16.4	14.6	13.0	11.6	10.3																
BB26	.00013380											43.3	38.5	34.3	30.6	27.2	24.3	21.6	19.3	17.2	15.3	13.6	12.1	10.8															
BB28	.00015880												40.7	36.3	32.3	28.8	25.7	22.9	20.4	18.2	16.2	14.4	12.8	11.4	10.2														
BB30	.00017570													40.2	35.8	31.9	28.4	25.3	22.5	20.1	17.9	15.9	14.2	12.7	11.3	10.0													
BB32	.00020840														42.4	37.8	33.7	30.0	26.7	23.8	21.2	18.9	16.8	15.0	13.4	11.9	10.6												
BB34	.00025420																41.1	36.6	32.6	29.1	25.9	23.1	20.5	18.3	16.3	14.5	12.9	11.5	10.3										
BB36	.00025840																	41.8	37.2	33.2	29.5	26.3	23.4	20.9	18.6	16.6	14.8	13.2	11.7	10.4									
BB38	.00027920																		40.2	35.8	31.9	28.4	25.3	22.6	20.1	17.9	16.0	14.2	12.7	11.3	10.1								
BB40	.00031810																			40.8	36.4	32.4	28.9	25.7	22.9	20.4	18.2	16.2	14.4	12.9	11.5	10.2							
BB42	.00035280																				40.3	35.9	32.0	28.5	25.4	22.6	20.2	18.0	16.0	14.3	12.7	11.3	10.1						
BB44	.00039310																					40.0	35.7	31.8	28.3	25.2	22.5	20.0	17.8	15.9	14.2	12.6	11.2	10.0					
BB46	.00042570																						43.3	38.6	34.4	30.7	27.3	24.3	21.7	19.3	17.2	15.3	13.7	12.2	10.8				
BB48	.00044940																							40.8	36.3	32.4	28.8	25.7	22.9	20.4	18.2	16.2	14.4	12.8	11.4	10.2			
BB50	.00049490																							44.9	40.0	35.6	31.7	28.3	25.2	22.5	20.0	17.8	15.9	14.1	12.6	11.2	10.0		
BB52	.00051610																								41.7	37.2	33.1	29.5	26.3	23.4	20.9	18.6	16.6	14.8	13.1	11.7	10.4		
BB54	.00055610																									40.0	35.7	31.8	28.3	25.2	22.5	20.0	17.8	15.9	14.2	12.6	11.2	10.0	
BB56	.00060780																									43.8	39.0	34.7	30.9	27.6	24.6	21.9	19.5	17.4	15.5	13.8	12.3	10.9	
BB60	.00078760																										45.0	40.1	35.7	31.8	28.4	25.3	22.5	20.1	17.9	15.9	14.2		

By Available Sets

Cat. No.	TOTAL	1-E	2-B	3-G	4-D	5-A	6-E
BB10U Ultra Light	116.2	010 16.5	013½ 16.3	BB20 24.0	BB26 19.3	BB36 20.9	BB46 19.3
BB20X Extra Light	138.2	011 21.4	014 19.4	BB22 27.0	BB30 25.3	BB38 22.6	BB50 22.5
BB30L Light	177.0	012 24.7	016 24.0	BB24 29.2	BB36 37.2	BB46 34.4	BB56 27.6
BB40M Medium	189.2	013 28.0	017 27.7	BB26 34.3	BB36 37.2	BB46 34.4	BB56 27.6
BB50H Heavy	217.2	014 34.6	018 29.6	BB28 40.7	BB38 40.2	BB48 36.3	BB60 35.7

12 STRING SETS

Cat. No.	TOTAL	1-E	2-B	3-G	4-D	5-A	6-E
BB60X Extra Light	191.3	009 13.1	012 13.9	015 13.6	BB26 19.3	BB34 20.5	BB42 16.0
		009 13.1	012 13.9	008 16.5	011 17.0	014 15.4	BB22 19.1
BB80 Light	258.5	011 21.4	014 19.4	BB20 24.0	BB30 25.3	BB40 25.7	BB48 20.4
		011 21.4	014 19.4	009 18.6	012 19.6	016 19.1	BB26 24.3
BB100 Medium	324.4	012 24.7	016 24.0	BB26 34.3	BB34 36.6	BB44 31.8	BB52 23.4
		012 24.7	016 24.0	010 23.3	013 22.2	018 23.5	BB30 31.9

Contact Core™ Bright Bronze™ - Tension



- 80/20 Copper-Zinc Alloy
- Wound on a Hex Core Wire
- Exposed Core for Rich and Defined Bass Tone with Piano Like Clarity

By Individual String

42" Overall Length Plain Steel, 38" Winding/40" Overall Length Wound Strings

Cat. No.	Unit Weight	G4	F#4	F4	E4	D#4	D4	C#4	C4	B3	A#3	A3	G#3	G3	F#3	F3	E3	D#3	D3	C#3	C3	B2	A#2	A2	G#2	G2	F#2	F2	E2	D#2	D2	C#2	C2	B1	A#1	A1	G#1		
010	.00002270	23.3	20.7	18.5	16.5	14.7	13.1	11.7	10.4	9.2	8.2																												
011	.00002950	30.3	27.0	24.0	21.4	19.1	17.0	15.1	13.5	12.0	10.7	9.5	8.5																										
012	.00003400	34.9	31.1	27.7	24.7	22.0	19.6	17.5	15.5	13.9	12.3	11.0	9.8	8.7																									
013	.00003860		35.3	31.4	28.0	25.0	22.2	19.8	17.7	15.7	14.0	12.5	11.1	9.9	8.8																								
014	.00004770				34.6	30.8	27.5	24.5	21.8	19.4	17.3	15.4	13.7	12.2	10.9	9.7	8.7																						
016	.00005900						34.0	30.3	27.0	24.0	21.4	19.1	17.0	15.1	13.5	12.0	10.7	9.5	8.5																				
017	.00006810							35.0	31.1	27.7	24.7	22.0	19.6	17.5	15.6	13.9	12.4	11.0	9.8	8.7																			
CBB20	.00009339									42.7	38.0	33.9	30.2	26.9	24.0	21.4	19.0	16.9	15.1	13.5	12.0	10.7																	
CBB22	.00010530										42.9	38.2	34.0	30.3	27.0	24.1	21.4	19.1	17.0	15.2	13.5	12.0	10.7																
CBB24	.00011360											36.7	32.7	29.2	26.0	23.1	20.6	18.4	16.4	14.6	13.0	11.6	10.3																
CBB26	.00013380												34.3	30.6	27.2	24.3	21.6	19.3	17.2	15.3	13.6	12.1	10.8																
CBB30	.00017570													35.8	31.9	28.4	25.3	22.5	20.1	17.9	15.9	14.2	12.7	11.3	10.0														
CBB32	.00020840														42.4	37.8	33.7	30.0	26.7	23.8	21.2	18.9	16.8	15.0	13.4	11.9	10.6												
CBB36	.00025840																41.8	37.2	33.2	29.5	26.3	23.4	20.9	18.6	16.6	14.8	13.2	11.7	10.4										
CBB38	.00027920																	40.2	35.8	31.9	28.4	25.3	22.6	20.1	17.9	16.0	14.2	12.7	11.3	10.0									
CBB42	.00035280																			40.3	35.9	32.0	28.5	25.4	22.6	20.2	18.0	16.0	14.3	12.7	11.3	10.1							
CBB46	.00042570																				43.3	38.6	34.4	30.7	27.3	24.3	21.7	19.3	17.2	15.3	13.7	12.2	10.8						
CBB50	.00049490																					44.9	40.0	35.6	31.7	28.3	25.2	22.5	20.0	17.8	15.9	14.1	12.6	11.2	10.0				
CBB54	.00055610																						44.9	40.0	35.7	31.8	28.3	25.2	22.5	20.0	17.8	15.9	14.2	12.6	11.2	10.0			
CBB56	.00060780																							39.0	34.7	30.9	27.6	24.6	21.9	19.5	17.4	15.5	13.8	12.3	10.9				

By Available Sets

Cat. No.	TOTAL	1-E	2-B	3-G	4-D	5-A	6-E	Cat. No.	TOTAL	1-E	2-B	3-G	4-D	5-A	6-E
CCBB10 Ultra Light	115.6	010 16.5	013 15.7	CBB20 24.0	CBB26 19.3	CBB36 20.9	CBB46 19.3	CBB30 Light	161.6	012 24.7	016 24.0	CBB24 29.2	CBB32 30.0	CBB42 28.5	CBB54 25.2
CCBB20 Extra Light	138.2	011 21.4	014 19.4	CBB22 27.0	CBB30 25.3	CBB38 22.6	CBB50 22.5	CBB40 Medium	189.2	013 28.0	017 27.7	CBB26 34.3	CBB36 37.2	CBB46 34.4	CBB56 27.6

Bright Bronze™ Rollerwound - Tension



- 80/20 Copper Zinc Alloy
- Wound on a Hex Core Wire
- Rollerwound for a Smooth Feel with Minimal Finger Noise

By Individual String

38" Winding/40" Overall Length Wound Strings

Cat. No.	Unit Weight	G4	F#4	F4	E4	D#4	D4	C#4	C4	B3	A#3	A3	G#3	G3	F#3	F3	E3	D#3	D3	C#3	C3	B2	A#2	A2	G#2	G2	F#2	F2	E2	D#2	D2	C#2	C2	B1	A#1	A1	G#1
RB26	.00015890													40.7	36.2	32.3	28.8	25.6	22.8	20.3	18.1	16.1	14.4	12.8	11.4	10.2											
RB34	.00026017																42.1	37.5	33.4	29.7	26.5	23.6	21.0	18.7	16.7	14.9	13.3	11.8	10.5								
RB44	.00040969																				41.7	37.2	33.1	29.5	26.3	23.4	20.9	18.6	16.6	14.8	13.1	11.7	10.4				
RB54	.00058911																					42.4	37.8	33.7	30.0	26.7	23.8	21.2	18.9	16.8	15.0	13.4	11.9	10.6			

Ground Phosphor Bronze™ - Tension



- Copper-Tin-Phosphor Alloy
- Wound on a Hex Core Wire
- Ground Smooth for a Mellow Tone with No Finger Noise

By Individual String

38" Winding/40" Overall Length Wound Strings

Cat. No.	Unit Weight	G4	F#4	F4	E4	D#4	D4	C#4	C4	B3	A#3	A3	G#3	G3	F#3	F3	E3	D#3	D3	C#3	C3	B2	A#2	A2	G#2	G2	F#2	F2	E2	D#2	D2	C#2	C2	B1	A#1	A1	G#1		
SFB24	.00013889													40.0	35.6	31.8	28.3	25.2	22.5	20.0	17.8	15.9	14.1	12.6	11.2	10.0													
SFB28	.00017909														45.0	40.9	36.5	32.5	28.9	25.79	23.0	20.5	18.2	16.2	14.5	12.9	11.5	10.2											
SFB36	.00027778																				40.0	35.6	31.7	28.3	25.2	22.5	20.0	17.8	15.9	14.1	12.6	11.2	10.0						
SFB46	.00046053																					41.8	37.2	33.2	29.5	26.3	23.5	20.9	18.6	16.6	14.8	13.2	11.7	10.4					
SFB56	.00065205																						41.8	37.3	33.2	29.6	26.4	23.5	20.9	18.6	16.6	14.8	13.2	11.7	10.4				

Phosphor Bronze - Tension



- Copper-Tin-Phosphor Alloy
- Wound on a Hex Core
- High End Shimmer without Harsh Overtones

By Individual String

42" Overall Length Plain Steel, 38" Winding/40" Overall Length Wound Strings

Cat. No.	Unit Weight	G4	F#4	F4	E4	D#4	D4	C#4	C4	B3	A#3	A3	G#3	G3	F#3	F3	E3	D#3	D3	C#3	C3	B2	A#2	A2	G#2	G2	F#2	F2	E2	D#2	D2	C#2	C2	B1	A#1	A1	G#1		
008	.00001609	16.5	14.7	13.1	11.7	10.4	9.3	8.3																															
009	.00001810	18.6	16.5	14.7	13.1	11.7	10.4	9.3	8.3																														
010	.00002270	23.3	20.7	18.5	16.5	14.7	13.1	11.7	10.4	9.2	8.2																												
011	.00002950	30.3	27.0	24.0	21.4	19.1	17.0	15.1	13.5	12.0	10.7	9.5	8.5																										
011 1/2	.00003080	31.6	28.2	25.1	22.4	19.9	17.7	15.8	14.1	12.5	11.2	10.0	8.9																										
012	.00003400	34.9	31.1	27.7	24.7	22.0	19.6	17.5	15.5	13.9	12.3	11.0	9.8	8.7																									
013	.00003860		35.3	31.4	28.0	25.0	22.2	19.8	17.7	15.7	14.0	12.5	11.1	9.9	8.8																								
014	.00004770			34.6	30.8	27.5	24.5	21.8	19.4	17.3	15.4	13.7	12.2	10.9	9.7	8.7																							
015	.00005280				34.1	30.4	27.1	24.1	21.5	19.2	17.1	15.2	13.6	12.1	10.8	9.6	8.5																						
016	.00005900					34.0	30.3	27.0	24.0	21.4	19.1	17.0	15.1	13.5	12.0	10.7	9.5	8.5																					
017	.00006810						35.0	31.1	27.7	24.7	22.0	19.6	17.5	15.6	13.9	12.4	11.0	9.8	8.7																				
018	.00007270							37.3	33.2	29.6	26.4	23.5	20.9	18.7	16.6	14.8	13.2	11.8	10.5	9.3	8.3																		
B18	.00007394					42.6	37.9	33.8	30.1	26.8	23.9	21.3	19.0	16.9	15.1	13.4	12.0	10.7																					
B20	.0008506						43.7	38.9	34.6	30.9	27.5	24.5	21.8	19.4	17.3	15.4	13.8	12.3	10.9																				
B22	.00009971								40.6	36.2	32.2	28.7	25.6	22.8	20.3	18.1	16.1	14.4	12.8	11.4	10.2																		
B24	.00012470									40.3	35.9	32.0	28.5	25.4	22.6	20.2	18.0	16.0	14.3	12.7	11.3	10.1																	
B26	.00015560										44.8	39.9	35.6	31.7	28.2	25.2	22.4	20.0	17.8	15.8	14.1	12.6	11.2	10.0															
B28	.00016440											42.2	37.6	33.5	29.8	26.6	23.7	21.1	18.8	16.7	14.9	13.3	11.8	10.5															
B30	.00020620												42.0	37.4	33.3	29.7	26.5	23.6	21.0	18.7	16.7	14.9	13.2	11.8	10.5														
B32	.00021390													43.6	38.8	34.6	30.8	27.4	24.4	21.8	19.4	17.3	15.4	13.7	12.2	10.9													
B34	.00024310														44.1	39.3	35.0	31.2	27.8	24.8	22.1	19.7	17.5	15.6	13.9	12.4	11.0												
B36	.00026110															42.2	37.6	33.5	29.8	26.6	23.7	21.1	18.8	16.8	14.9	13.3	11.8	10.6											
B38	.00029310																42.2	37.6	33.5	29.8	26.6	23.7	21.1	18.8	16.8	14.9	13.3	11.8	10.6										
B40	.00031460																	40.4	36.0	32.0	28.5	25.4	22.7	20.2	18.0	16.0	14.3	12.7	11.3	10.1									
B42	.00035900																		41.0	36.6	32.6	29.0	25.9	23.0	20.5	18.3	16.3	14.5	12.9	11.5	10.3								
B44	.00038680																			44.2	39.4	35.1	31.3	27.9	24.8	22.1	19.7	17.5	15.6	13.9	12.4	11.1							
B46	.00039870																			40.6	36.2	32.2	28.7	25.6	22.8	20.3	18.1	16.1	14.4	12.8	11.4	10.2							
B48	.00047160																				42.8	38.1	34.0	30.3	27.0	24.0	21.4	19.1	17.0	15.1	13.5	12.0	10.7						
B50	.00050050																					40.5	36.0	32.1	28.6	25.5	22.7	20.2	18.0	16.1	14.3	12.7	11.4	10.1					
B52	.00051050																						41.3	36.8	32.7	29.2	26.0	23.2	20.6	18.4	16.4	14.6	13.0	11.6	10.3				
B54	.00061160																							44.0	39.2	35.0	31.1	27.7	24.7	22.0	19.6	17.5	15.6	13.9	12.4	11.0			
B56	.00062830																								40.3	35.9	32.0	28.5	25.4	22.6	20.2	18.0	16.0	14.3	12.7	11.3			
B58	.00064800																									41.6	37.0	33.0	29.4	26.2	23.3	20.8	18.5	16.5	14.7	13.1	11.7		

By Available Sets

Cat. No.	TOTAL	1-E	2-B	3-G	4-D	5-A	6-E
DDS325 Doyle Dykes, Light	155.9	011½ 22.4	015 21.5	B22 25.6	B30 29.7	B42 29.0	B54 27.7
S315 Extra Light	142.5	011 21.4	014 19.4	B22 25.6	B30 29.7	B38 23.7	B50 22.7
S325 Light	168.2	012 24.7	016 24.0	B24 32.0	B32 30.8	B42 29.0	B54 27.7
TM335 True Medium	176.0	013 28.0	017 27.7	B24 32.0	B32 30.8	B42 29.0	B56 28.5
S335 Medium	194.0	013 28.0	017 27.7	B26 40.0	B36 37.6	B46 32.2	B56 28.5
340 Heavy	216.1	014 34.6	018 29.6	B28 42.2	B38 42.2	B48 38.1	B58 29.4

12 STRING SETS

Cat. No.	TOTAL	1-E	2-B	3-G	4-D	5-A	6-E
605 Extra Light	192.9	009 13.1	012 13.9	015 13.6	B26 22.4	B34 19.7	B42 16.3
		009 13.1	012 13.9	008 16.5	011 17.0	014 15.4	B22 18.1
615 Light	265.4	011 21.4	014 19.4	B20 21.8	B30 29.7	B40 25.4	B48 21.4
		011 21.4	014 19.4	009 18.6	012 19.6	016 19.1	B26 28.2
625 Medium	333.2	012 24.7	016 24.0	B26 40.0	B34 35.0	B44 31.3	B52 23.2
		012 24.7	016 24.0	010 23.3	013 22.2	018 23.5	B30 37.4

Signature Bronze™ - Tension



- Copper-Tin-Phosphor Alloy
- Wound over a Hex Core Wire
- Cryogenically Treated for Extended Longevity
- Bronze-Plated Plain Steel Strings

By Individual String

42" Overall Length Plain Steel, 38" Winding/40" Overall Length Wound Strings

Cat. No.	Unit Weight	G4	F#4	F4	E4	D#4	D4	C#4	C4	B3	A#3	A3	G#3	G3	F#3	F3	E3	D#3	D3	C#3	C3	B2	A#2	A2	G#2	G2	F#2	F2	E2	D#2	D2	C#2	C2	B1	A#1	A1	G#1		
LJ11	.00003968		36.3	32.3	28.8	25.7	22.9	20.4	18.1	16.2	14.4	12.8	11.4	10.2	9.1	8.1																							
LJ12	.00004027		36.8	32.8	29.2	26.0	23.2	20.7	18.4	16.4	14.6	13.0	11.6	10.3	9.2	8.2																							
LJ13	.00004599			37.5	33.4	29.7	26.5	23.6	21.0	18.7	16.7	14.9	13.2	11.8	10.5	9.4	8.3																						
LJ14	.00005411					35.0	31.2	27.8	24.7	22.0	19.6	17.5	15.6	13.9	12.4	11.0	9.8	8.7																					
LJ16	.00006494						37.4	33.3	29.7	26.5	23.6	21.0	18.7	16.7	14.8	13.2	11.8	10.5	9.4	8.3																			
LJ17	.00007275							37.3	33.3	29.6	26.4	23.5	21.0	18.7	16.6	14.8	13.2	11.8	10.5	9.3	8.3																		
LJ19	.00008929									36.4	32.4	28.9	25.7	22.9	20.4	18.2	16.2	14.4	12.9	11.5	10.2	9.1	8.1																
LJ22	.00010810									44.0	39.3	34.9	31.1	27.7	24.7	22.0	19.6	17.5	15.6	13.9	12.4	11.0																	
LJ24	.00011080										40.2	35.8	31.9	28.4	25.3	22.6	20.1	17.9	16.0	14.2	12.7	11.3	10.1																
LJ26	.00012830										41.5	37.0	32.9	29.3	26.1	23.3	20.7	18.5	16.5	14.7	13.1	11.6	10.4																
LJ30	.00017568													40.2	35.8	31.9	28.4	25.3	22.5	20.1	17.9	15.9	14.2	12.7	11.3	10.0													
LJ32	.00020842														42.4	37.8	33.7	30.0	26.7	23.8	21.2	18.9	16.8	15.0	13.4	11.9	10.6												
LJ36	.00025841																41.8	37.2	33.2	29.5	26.3	23.4	20.9	18.6	16.6	14.8	13.2	11.7	10.4										
LJ38	.00027924																	40.2	35.8	31.9	28.4	25.3	22.6	20.1	17.9	16.0	14.2	12.7	11.3	10.0									
LJ42	.00037287																		42.6	38.0	33.8	30.1	26.9	23.9	21.3	19.0	16.9	15.1	13.4	12.0	10.7								
LJ46	.00042565																			43.3	38.6	34.4	30.7	27.3	24.3	21.7	19.3	17.2	15.3	13.7	12.2	10.8							
LJ50	.00049489																					40.0	35.6	31.7	28.3	25.2	22.5	20.0	17.8	15.9	14.1	12.6	11.2	10.0					
LJ54	.00055614																						40.0	35.7	31.8	28.3	25.2	22.5	20.0	17.8	15.9	14.2	12.6	11.2	10.0				
LJ56	.00063939																							41.0	36.5	32.6	29.0	25.8	23.0	20.5	18.3	16.3	14.5	12.9	11.5				

By Available Sets

Cat. No.	TOTAL	1-E	2-B	3-G	4-D	5-A	6-E	Cat. No.	TOTAL	1-E	2-B	3-G	4-D	5-A	6-E
LJ20X Ultra Light	148.9	LJ11 28.8	LJ14 22.0	LJ22 27.7	LJ30 25.3	LJ38 22.6	LJ50 22.5	LJ40TM True Medium	180.6	LJ13 33.4	LJ17 29.6	LJ24 28.4	LJ32 30.0	LJ42 30.1	LJ56 29.0
LJ30L Light	169.5	LJ12 29.2	LJ16 26.5	LJ24 28.4	LJ32 30.0	LJ42 30.0	LJ54 25.2	LJ40M Medium	196.5	LJ13 33.4	LJ17 29.6	LJ26 32.9	LJ36 37.2	LJ46 34.4	LJ56 29.0

Infinity Bronze™ - Tension



- Coated 80/20 Copper Zinc Alloy
- Wound over a Hex Core Wire
- Extra Longevity with Increased Brightness
- Bronze-Plated Plain Steel Strings

By Individual String

42" Overall Length Plain Steel, 38" Winding/40" Overall Length Wound Strings

Cat. No.	Unit Weight	G4	F#4	F4	E4	D#4	D4	C#4	C4	B3	A#3	A3	G#3	G3	F#3	F3	E3	D#3	D3	C#3	C3	B2	A#2	A2	G#2	G2	F#2	F2	E2	D#2	D2	C#2	C2	B1	A#1	A1	G#1		
LJ11	.00003968		36.3	32.3	28.8	25.7	22.9	20.4	18.1	16.2	14.4	12.8	11.4	10.2	9.1	8.1																							
LJ12	.00004027		36.8	32.8	29.2	26.0	23.2	20.7	18.4	16.4	14.6	13.0	11.6	10.3	9.2	8.2																							
LJ13	.00004599			37.5	33.4	29.7	26.5	23.6	21.0	18.7	16.7	14.9	13.2	11.8	10.5	9.4	8.3																						
LJ14	.00005411					35.0	31.2	27.8	24.7	22.0	19.6	17.5	15.6	13.9	12.4	11.0	9.8	8.7																					
LJ16	.00006494						37.4	33.3	29.7	26.5	23.6	21.0	18.7	16.7	14.8	13.2	11.8	10.5	9.4	8.3																			
LJ17	.00007275							37.3	33.3	29.6	26.4	23.5	21.0	18.7	16.6	14.8	13.2	11.8	10.5	9.3	8.3																		
LJ19	.00008929									36.4	32.4	28.9	25.7	22.9	20.4	18.2	16.2	14.4	12.9	11.5	10.2	9.1	8.1																
IB22	.00012821										41.4	36.9	32.9	29.3	26.1	23.3	20.7	18.5	16.5	14.7	13.0	11.6	10.4																
IB24	.00013986											40.3	35.9	32.0	28.5	25.4	22.6	20.1	17.9	16.0	14.2	12.7	11.3	10.1															
IB26	.00015152											43.6	38.9	34.6	30.9	27.5	24.5	21.8	19.4	17.3	15.4	13.7	12.2	10.9															
IB30	.00020559												41.9	37.3	33.2	29.6	26.4	23.5	20.9	18.7	16.6	14.8	13.2	11.8	10.5														
IB32	.00021930												44.7	39.8	35.4	31.6	28.1	25.1	22.3	19.9	17.7	15.8	14.1	12.5	11.2	10.0													
IB36	.00024671													39.9	35.5	31.7	28.2	25.1	22.4	19.9	17.8	15.8	14.1	12.6	11.2	10.0													
IB38	.00031415														40.3	35.9	32.0	28.5	25.4	22.6	20.2	18.0	16.0	14.3	12.7	11.3	10.1												
IB42	.00034722															44.5	39.7	35.4	31.5	28.1	25.0	22.3	19.8	17.7	15.8	14.0	12.5	11.1	10.0										
IB46	.00041980																				42.7	38.1	33.9	30.2	26.9	24.0	21.4	19.0	17.0	15.1	13.5	12.0	10.7						
IB50	.00050596																					40.9	36.4	32.5	28.9	25.8	23.0	20.4	18.2	16.2	14.5	12.9	11.5	10.2					
IB54	.00059211																						42.6	38.0	33.8	30.2	26.9	23.9	21.3	19.0	16.9	15.1	13.4	12.0	10.7				
IB56	.00061404																							44.2	39.4	35.1	31.3	27.9	24.8	22.1	19.7	17.6	15.6	13.9	12.4	11.1			

By Available Sets

Cat. No.	TOTAL	1-E	2-B	3-G	4-D	5-A	6-E
IB 20X							
Ultra Light	161.7	LJ11 28.8	LJ14 22.0	IB22 32.9	IB30 29.6	IB38 25.4	IB50 23.0
IB30L							
Light	178.0	LJ12 29.2	LJ16 26.5	IB24 35.9	IB32 31.6	IB42 28.1	IB54 26.9
IB40M							
Medium	199.2	LJ13 33.4	LJ17 29.6	IB26 38.9	IB36 35.5	IB46 33.9	IB56 27.9

White Bronze™ - Tension



- Nickel-Iron Alloy 52™
- Wound on a Hex Core
- Ideal for Acoustic/Electric Guitars
- Extra Volume, Clarity and Shimmer

By Individual String

42" Overall Length Plain Steel, 38" Winding/40" Overall Length Wound Strings

Cat. No.	Unit Weight	G4	F#4	F4	E4	D#4	D4	C#4	C4	B3	A#3	A3	G#3	G3	F#3	F3	E3	D#3	D3	C#3	C3	B2	A#2	A2	G#2	G2	F#2	F2	E2	D#2	D2	C#2	C2	B1	A#1	A1	G#1	
009	.00001810	18.6	16.5	14.7	13.1	11.7	10.4	9.3	8.3																													
011	.00002950	30.3	27.0	24.0	21.4	19.1	17.0	15.1	13.5	12.0	10.7	9.5	8.5																									
012	.00003400	34.9	31.1	27.7	24.7	22.0	19.6	17.5	15.5	13.9	12.3	11.0	9.8	8.7																								
013	.00003860		35.3	31.4	28.0	25.0	22.2	19.8	17.7	15.7	14.0	12.5	11.1	9.9	8.8																							
014	.00004770				34.6	30.8	27.5	24.5	21.8	19.4	17.3	15.4	13.7	12.2	10.9	9.7	8.7																					
015	.00005280					34.1	30.4	27.1	24.1	21.5	19.2	17.1	15.2	13.6	12.1	10.8	9.6	8.5																				
016	.00005900						34.0	30.3	27.0	24.0	21.4	19.1	17.0	15.1	13.5	12.0	10.7	9.5	8.5																			
017	.00006810							35.0	31.1	27.7	24.7	22.0	19.6	17.5	15.6	13.9	12.4	11.0	9.8	8.7																		
WB20	.00007687						44.3	39.4	35.1	31.1	27.9	24.9	22.1	19.7	17.6	15.7	13.9	12.4	11.1																			
WB22	.00010700									43.6	38.8	34.6	30.8	27.4	24.5	21.8	19.4	17.3	15.4	13.7	12.2	10.9																
WB24	.00010970										39.8	35.5	31.6	28.2	25.1	22.3	19.9	17.7	15.8	14.1	12.5	11.2	10.0															
WB26	.00013440										43.4	38.7	34.5	30.7	27.4	24.4	21.7	19.4	17.2	15.4	13.7	12.2	10.9															
WB30	.00016600											42.6	37.9	33.8	30.1	26.8	23.9	21.3	19.0	16.9	15.1	13.4	12.0	10.7														
WB32	.00020020												40.8	36.3	32.4	28.8	25.7	22.9	20.4	18.2	16.2	14.4	12.8	11.4	10.2													
WB36	.00022650													41.1	36.6	32.6	29.1	25.9	23.1	20.6	18.3	16.3	14.5	12.9	11.5	10.3												
WB38	.00027860														40.1	35.7	31.8	28.4	25.3	22.5	20.1	17.9	15.9	14.2	12.6	11.3	10.0											
WB42	.00032390															41.6	37.0	33.0	29.4	26.2	23.3	20.9	18.5	16.5	14.7	13.1	11.7	10.4										
WB46	.00040110																40.8	36.4	32.4	28.9	25.7	22.9	20.4	18.2	16.2	14.4	12.9	11.5	10.2									
WB48	.00047340																	42.9	38.3	34.1	30.4	27.1	24.1	21.5	19.1	17.0	15.2	13.5	12.1	10.7								
WB50	.00049640																		40.1	35.7	31.8	28.4	25.3	22.5	20.1	17.9	15.9	14.2	12.6	11.3	10.0							
WB52	.00057720																			41.6	37.0	33.0	29.4	26.2	23.3	20.8	18.5	16.5	14.7	13.1	11.7	10.4						
WB54	.00059560																				42.9	38.2	34.0	30.3	27.0	24.1	21.4	19.1	17.0	15.2	13.5	12.0	10.7					
WB56	.00062090																					39.8	35.5	31.6	28.2	25.1	22.4	19.9	17.7	15.8	14.1	12.5	11.2					

By Available Sets

Cat. No.	TOTAL	1-E	2-B	3-G	4-D	5-A	6-E
WB-XL Extra Light	119.7	011 21.4	014 19.4	WB20 19.7	WB26 19.4	WB36 18.3	WB48 21.5
WB-TL True Light	142.6	012 24.7	015 21.5	WB22 27.5	WB30 23.9	WB38 22.5	WB50 22.5
WB-L Light	158.9	012 24.7	016 24.0	WB24 28.2	WB32 28.8	WB42 26.2	WB54 27.0
WB-M Medium	180.1	012 24.7	017 27.7	WB26 34.5	WB36 32.6	WB46 32.4	WB56 28.2

12 STRING SETS

Cat. No.	TOTAL	1-E	2-B	3-G	4-D	5-A	6-E
WB-12L Light	264.6	011 21.4	014 19.4	WB20 19.7	WB30 23.9	WB38 22.5	WB48 21.5
		011 21.4	014 19.4	009 18.6	014 27.5	WB20 24.9	WB26 24.4

Silk and Steel - Tension



- Silver Plated Copper
- Wound on a Round Core Wire
- Silk run the Length of the Core, to give a Rich, Mellow Sound with a Light Feel

By Individual String

42" Overall Length Plain Steel, 38" Winding/40" Overall Length Wound Strings

Cat. No.	Unit Weight	G4	F#4	F4	E4	D#4	D4	C#4	C4	B3	A#3	A3	G#3	G3	F#3	F3	E3	D#3	D3	C#3	C3	B2	A#2	A2	G#2	G2	F#2	F2	E2	D#2	D2	C#2	C2	B1	A#1	A1	G#1
009	.00001810	18.6	16.5	14.7	13.1	11.7	10.4	9.3	8.3																												
010	.00002270	23.3	20.7	18.5	16.5	14.7	13.1	11.7	10.4	9.2	8.2																										
011	.00002950	30.3	27.0	24.0	21.4	19.1	17.0	15.1	13.5	12.0	10.7	9.5	8.5																								
012	.00003400	34.9	31.1	27.7	24.7	22.0	19.6	17.5	15.5	13.9	12.3	11.0	9.8	8.7																							
013	.00003860		35.3	31.4	28.0	25.0	22.2	19.8	17.7	15.7	14.0	12.5	11.1	9.9	8.8																						
014	.00004770				34.6	30.8	27.5	24.5	21.8	19.4	17.3	15.4	13.7	12.2	10.9	9.7	8.7																				
015	.00005280					34.1	30.4	27.1	24.1	21.5	19.2	17.1	15.2	13.6	12.1	10.8	9.6	8.5																			
018	.00007270							37.3	33.2	29.6	26.4	23.5	20.9	18.7	16.6	14.8	13.2	11.8	10.5	9.3	8.3																
S20	.00008228							42.2	37.6	33.5	29.9	26.6	23.7	21.1	18.8	16.8	14.9	13.3	11.9	10.6																	
S22	.00009971									40.6	36.2	32.2	28.7	25.6	22.8	20.3	18.1	16.1	14.4	12.8	11.4	10.2															
S26	.00013860												39.9	35.6	31.7	28.2	25.1	22.4	20.0	17.8	15.8	14.1	12.6	11.2	10.0												
S28	.00016080													41.3	36.8	32.7	29.2	26.0	23.2	20.6	18.4	16.4	14.6	13.0	11.6	10.3											
S30	.00019170														43.8	39.0	34.8	31.0	27.6	24.6	21.9	19.5	17.4	15.5	13.8	12.3	11.0										
S34	.00025050																40.5	36.1	32.1	28.6	25.5	22.7	20.2	18.0	16.1	14.3	12.8	11.4	10.1								
S38	.00032270																	41.4	36.9	32.9	29.3	26.1	23.2	20.7	18.4	16.4	14.6	13.0	11.6	10.4							
S40	.00035840																			41.0	36.5	32.5	29.0	25.8	23.0	20.5	18.3	16.3	14.5	12.9	11.5	10.2					
S42	.00038400																			43.9	39.1	34.8	31.0	27.7	24.6	21.9	19.6	17.4	15.5	13.8	12.3	11.0					
S48	.00053680																				43.4	38.7	34.4	30.7	27.3	24.4	21.7	19.3	17.2	15.3	13.7	12.2	10.8				
S50	.00055917																					40.3	35.9	32.0	28.5	25.4	22.6	20.1	17.9	16.0	14.2	12.7	11.3	10.1			

By Available Sets

Cat. No.	TOTAL	1-E	2-B	3-G	4-D	5-A	6-E
345 Light	110.9	010 16.5	013 15.7	S20 21.1	S26 20.0	S34 20.2	S42 17.4
350 Medium	140.0	011 21.4	014 19.4	S22 25.6	S28 23.2	S38 26.1	S48 24.4

12 STRING SETS

Cat. No.	TOTAL	1-E	2-B	3-G	4-D	5-A	6-E
600 Light	213.8	010 16.5 010 16.5	013 15.7 013 15.7	S20 21.1 090 18.6	S26 20.0 011 17.0	S34 20.2 015 17.1	S42 17.4 S22 18.1
610 Medium	272.3	011 21.4 011 21.4	014 19.4 014 19.4	S22 25.6 010 23.3	S28 23.2 012 19.6	S38 26.1 018 23.5	S48 24.4 S26 25.1

Silk and Bronze™ - Tension



- Copper-Tin-Phosphor Alloy
- Wound on a Round Core Wire
- Silk run the Length of the Core, to give a Sweet, Warm Sound with a Light Feel

By Individual String

42" Overall Length Plain Steel, 38" Winding/40" Overall Length Wound Strings

Cat. No.	Unit Weight	G4	F#4	F4	E4	D#4	D4	C#4	C4	B3	A#3	A3	G#3	G3	F#3	F3	E3	D#3	D3	C#3	C3	B2	A#2	A2	G#2	G2	F#2	F2	E2	D#2	D2	C#2	C2	B1	A#1	A1	G#1
009	.00001810	18.6	16.5	14.7	13.1	11.7	10.4	9.3	8.3																												
011	.00002950	30.3	27.0	24.0	21.4	19.1	17.0	15.1	13.5	12.0	10.7	9.5	8.5																								
012	.00003400	34.9	31.1	27.7	24.7	22.0	19.6	17.5	15.5	13.9	12.3	11.0	9.8	8.7																							
014	.00004770				34.6	30.8	27.5	24.5	21.8	19.4	17.3	15.4	13.7	12.2	10.9	9.7	8.7																				
016	.00005900					34.0	30.3	27.0	24.0	21.4	19.1	17.0	15.1	13.5	12.0	10.7	9.5	8.5																			
SB23	.00013060												42.2	37.6	33.5	29.9	26.6	23.7	21.1	18.8	16.8	14.9	13.3	11.9	10.6												
SB24	.00013580													43.9	39.1	34.8	31.0	27.7	24.6	22.0	19.6	17.4	15.5	13.8	12.3	11.0											
SB29	.00018300														41.8	37.3	33.2	29.6	26.4	23.5	20.9	18.6	16.6	14.8	13.2	11.7	10.5										
SB32	.00022270															40.4	36.0	32.1	28.6	25.5	22.7	20.2	18.0	16.0	14.3	12.7	11.3	10.1									
SB39	.00034720																44.5	39.7	35.4	31.5	28.1	25.0	22.3	19.8	17.7	15.8	14.0	12.5	11.1								
SB42	.00039790																	40.5	36.1	32.2	28.7	25.5	22.7	20.3	18.1	16.1	14.3	12.8	11.4	10.1							
SB49	.00053680																				43.4	38.7	34.4	30.7	27.3	24.4	21.7	19.3	17.2	15.3	13.7	12.2	10.8				
SB54	.00058830																					42.4	37.7	33.6	30.0	26.7	23.8	21.2	18.9	16.8	15.0	13.3	11.9	10.6			

By Available Sets

Cat. No.	TOTAL	1-E	2-B	3-G	4-D	5-A	6-E
370 Light	153.1	011 21.4	014 19.4	SB23 33.5	SB29 26.4	SB39 28.1	SB49 24.4
370 Medium Light	174.4	012 24.7	016 24.0	SB24 34.8	SB32 32.1	SB42 32.2	SB54 26.7

12 STRING SETS

Cat. No.	TOTAL	1-E	2-B	3-G	4-D	5-A	6-E
370-12L Light	213.8	011 21.4 011 21.4	014 19.4 014 19.4	SB23 33.5 090 18.6	SB29 26.4 014 27.5	SB39 28.1 SB23 42.2	SB49 24.4 SB29 33.2

Vintage Bronze™ - Tension



- 85/15 Copper Zinc Alloy
- Wound on a Hex Core Wire
- Warm and Rich Tone
- Perfect for those Overly Bright Guitars

By Individual String

42" Overall Length Plain Steel, 38" Winding/40" Overall Length Wound Strings

Cat. No.	Unit Weight	G4	F#4	F4	E4	D#4	D4	C#4	C4	B3	A#3	A3	G#3	G3	F#3	F3	E3	D#3	D3	C#3	C3	B2	A#2	A2	G#2	G2	F#2	F2	E2	D#2	D2	C#2	C2	B1	A#1	A1	G#1			
009	.00001810	18.6	16.5	14.7	13.1	11.7	10.4	9.3	8.3																															
010	.00002270	23.3	20.7	18.5	16.5	14.7	13.1	11.7	10.4	9.2	8.2																													
011	.00002950	30.3	27.0	24.0	21.4	19.1	17.0	15.1	13.5	12.0	10.7	9.5	8.5																											
012	.00003400	34.9	31.1	27.7	24.7	22.0	19.6	17.5	15.5	13.9	12.3	11.0	9.8	8.7																										
013	.00003860		35.3	31.4	28.0	25.0	22.2	19.8	17.7	15.7	14.0	12.5	11.1	9.9	8.8																									
013 1/2	.00004008		36.6	32.6	29.1	25.9	23.1	20.6	18.3	16.3	14.5	13.0	11.5	10.3	9.2	8.2																								
014	.00004770			34.6	30.8	27.5	24.5	21.8	19.4	17.3	15.4	13.7	12.2	10.9	9.7	8.7																								
016	.00005900					34.0	30.3	27.0	24.0	21.4	19.1	17.0	15.1	13.5	12.0	10.7	9.5	8.5																						
017	.00006810						35.0	31.1	27.7	24.7	22.0	19.6	17.5	15.6	13.9	12.4	11.0	9.8	8.7																					
VN20	.00009061							41.4	36.9	32.9	29.3	26.1	23.2	20.7	18.5	16.4	14.6	13.1	11.6	10.4																				
VN22	.00009971								40.6	36.2	32.2	28.7	25.6	22.8	20.3	18.1	16.1	14.4	12.8	11.4	10.2																			
VN24	.00011360									41.2	36.7	32.7	29.2	26.0	23.1	20.6	18.4	16.4	14.6	13.0	11.6	10.3																		
VN26	.00013340										43.1	38.4	34.2	30.5	27.2	24.2	21.6	19.2	17.1	15.3	13.6	12.1	10.8																	
VN28	.00016710											42.9	38.2	34.0	30.3	27.0	24.1	21.4	19.1	17.0	15.2	13.5	12.0	10.7																
VN30	.00018960												43.3	38.6	34.4	30.6	27.3	24.3	21.7	19.3	17.2	15.3	13.7	12.2	10.8															
VN32	.00022290													40.4	36.0	32.1	28.6	25.5	22.7	20.2	18.0	16.1	14.3	12.7	11.4	10.1														
VN34	.00025420														41.1	36.6	32.6	29.1	25.9	23.1	20.5	18.3	16.3	14.5	12.9	11.5	10.3													
VN36	.00025900															41.9	37.3	33.2	29.6	26.4	23.5	20.9	18.7	16.6	14.8	13.2	11.8	10.5												
VN38	.00029310																42.2	37.6	33.5	29.8	26.6	23.7	21.1	18.8	16.8	14.9	13.3	11.8	10.6											
VN40	.00030780																	44.3	39.5	35.2	31.3	27.9	24.9	22.2	19.7	17.6	15.7	14.0	12.4	11.1										
VN42	.00036810																		42.1	37.5	33.4	29.8	26.5	23.6	21.0	18.7	16.7	14.9	13.3	11.8	10.5									
VN46	.00041160																			41.9	37.3	33.3	29.6	26.4	23.5	21.0	18.7	16.6	14.8	13.2	11.8	10.5								
VN48	.00046610																				42.3	37.7	33.6	29.9	26.6	23.7	21.1	18.8	16.8	15.0	13.3	11.9	10.6							
VN50	.00049770																					40.2	35.8	31.9	28.4	25.3	22.6	20.1	17.9	16.0	14.2	12.7	11.3	10.1						
VN54	.00060050																						43.2	38.5	34.3	30.6	27.2	24.3	21.6	19.3	17.2	15.3	13.6	12.1	10.8					
VN56	.00063280																							40.6	36.2	32.2	28.7	25.6	22.8	20.3	18.1	16.1	14.4	12.8	11.4					
VN58	.00065150																								41.8	37.2	33.2	29.6	26.3	23.5	20.9	18.6	16.6	14.8	13.2	11.7				

By Available Sets

Cat. No.	TOTAL	1-E	2-B	3-G	4-D	5-A	6-E
VN-UL Ultra Light	114.8	010 16.5	013½ 16.3	VN20 23.3	VN26 19.2	VN36 20.9	VN46 18.7
VN-XL Extra Light	140.0	011 21.4	014 19.4	VN22 25.6	VN30 27.3	VN38 23.7	VN50 22.6
VN-L Light	166.9	012 24.7	016 24.0	VN24 29.2	VN32 32.1	VN42 29.8	VN54 27.2
VN-B Bluegrass	182.2	012 24.7	016 24.0	VN26 34.2	VN36 37.3	VN46 33.3	VN56 28.7
VN-M Medium	189.2	013 28.0	017 27.7	VN26 34.2	VN36 37.3	VN46 33.3	VN56 28.7

12 STRING SETS

Cat. No.	TOTAL	1-E	2-B	3-G	4-D	5-A	6-E
VN-12CL Custom Light	219.7	010 16.5	013 15.7	VN20 23.3	VN26 19.2	VN36 20.9	VN46 18.7
		010 16.5	013 15.7	009 18.6	011 17.0	015 17.1	VN24 20.6
VN-12L Light	259.7	011 21.4	014 19.4	VN20 23.3	VN30 27.3	VN40 24.9	VN48 21.1
		011 21.4	014 19.4	009 18.6	012 19.6	016 19.1	VN26 24.2

Plain Steel - Tension



- High-Grade Carbon Steel Wire
- Proprietary Lock-Twist™ on Ball End
- Incredible Stability and Durability

By Individual String

42" Overall Length

Cat. No.	Unit Weight	G4	F#4	F4	E4	D#4	D4	C#4	C4	B3	A#3	A3	G#3	G3	F#3	F3	E3	D#3	D3	C#3	C3	B2	A#2	A2	G#2	G2	F#2	F2	E2	D#2	D2	C#2	C2	B1	A#1	A1	G#1	
008	.00001609	16.5	14.7	13.1	11.7	10.4	9.3	8.3																														
008 1/2	.00001709	17.5	15.6	13.9	12.4	11.1	9.8	8.8																														
009	.00001810	18.6	16.5	14.7	13.1	11.7	10.4	9.3	8.3																													
009 1/2	.00002159	22.2	19.7	17.6	15.7	14.0	12.4	11.1	9.9	8.8																												
010	.00002270	23.3	20.7	18.5	16.5	14.7	13.1	11.7	10.4	9.2	8.2																											
010 1/2	.00002500	25.7	22.9	20.4	18.1	16.2	14.4	12.8	11.4	10.2	9.1	8.1																										
011	.00002950	30.3	27.0	24.0	21.4	19.1	17.0	15.1	13.5	12.0	10.7	9.5	8.5																									
011 1/2	.00003080	31.6	28.2	25.1	22.4	19.9	17.7	15.8	14.1	12.5	11.2	10.0	8.9																									
012	.00003400	34.9	31.1	27.7	24.7	22.0	19.6	17.5	15.5	13.9	12.3	11.0	9.8	8.7																								
012 1/2	.00003540	36.3	32.4	28.8	25.7	22.9	20.4	18.2	16.2	14.4	12.8	11.4	10.2	9.1	8.1																							
013	.00003860		35.3	31.4	28.0	25.0	22.2	19.8	17.7	15.7	14.0	12.5	11.1	9.9	8.8																							
013 1/2	.00004008		36.6	32.6	29.1	25.9	23.1	20.6	18.3	16.3	14.5	13.0	11.5	10.3	9.2	8.2																						
014	.00004770			34.6	30.8	27.5	24.5	21.8	19.4	17.3	15.4	13.7	12.2	10.9	9.7	8.7																						
015	.00005280				34.1	30.4	27.1	24.1	21.5	19.2	17.1	15.2	13.6	12.1	10.8	9.6	8.5																					
016	.00005900					34.0	30.3	27.0	24.0	21.4	19.1	17.0	15.1	13.5	12.0	10.7	9.5	8.5																				
017	.00006810							35.0	31.1	27.7	24.7	22.0	19.6	17.5	15.6	13.9	12.4	11.0	9.8	8.7																		
018	.00007270								37.3	33.2	29.6	26.4	23.5	20.9	18.7	16.6	14.8	13.2	11.8	10.5	9.3	8.3																
019	.00007720									35.3	31.4	28.0	25.0	22.2	19.8	17.7	15.7	14.0	12.5	11.1	9.9	8.8																
020	.00008410										34.3	30.5	27.2	24.2	21.6	19.2	17.1	15.3	13.6	12.1	10.8	9.6	8.6															
021	.00009320											33.8	30.1	26.8	23.9	21.3	19.0	16.9	15.1	13.4	12.0	10.7	9.5	8.5														
022	.00011590												37.5	33.4	29.7	26.5	23.6	21.0	18.7	16.7	14.9	13.3	11.8	10.5	9.4	8.3												
024	.00014320														36.7	32.7	29.2	26.0	23.1	20.6	18.4	16.4	14.6	13.0	11.6	10.3	9.2	8.2										
026	.00015680															35.8	31.9	28.4	25.3	22.6	20.1	17.9	16.0	14.2	12.7	11.3	10.1	9.0										

Final Thoughts

This tension guide is just that; a guide. You're the expert at your own personal playing style and needs, so if something doesn't feel/sound right, you can change it. Music is a very organic art form, so while you can start with science, you perfect it by touch and feel.

If you're perfectly happy with playing a pre-packaged set of strings, *GREAT!*

If you're excited about putting together that balanced tension set, *GREAT!*

If you want to try a set with less/more tension than what you're used to, *GREAT!*

You're playing. You're learning. That's the important part. We'll provide the strings; you provide the inspiration.



2813 Wilber Avenue
Battle Creek, MI 49037
800-388-4447

www.ghsstrings.com