Sonowood Beech

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Sonowood Walnut





Swiss Wood Solutions is a start-up company in fields of novel, wood-based materials and products. We provide pioneering product solutions which help to preserve endangered tropical woods and replace harmful plastics.

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For musical instruments, we offer the innovative product Sonowood<sup>®</sup> made from European and North American wood species from sustainably managed forests. Sonowood matches the favorable properties of tropical woods and even outperforms them in terms of hardness, density and sound quality, while being a completely legal alternative.

#### Product advice and technical information:

Swiss Wood Solutions AG Überlandstrasse 129 CH-8600 Dübendorf, Switzerland

info@swisswoodsolutions.ch sonowood.wisswoodsolutions.ch

#### Web-shop: sonowood.ch





# swiss **wood** solutions

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# Sonowood®

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In response to the ecological, ethical and legal concerns associated with the use of tropical woods in string instruments, Swiss Wood Solutions has developed the sustainable product Sonowood<sup>®</sup>.

Sustainable domestic European and North American woods are treated in an innovative modification process to such an extent that they achieve properties which equal those of tropical hardwoods. The outstanding hardness and density of Sonowood helps to ensure that your stringed instruments deliver the highest acoustic performance.

## Sonowood advantages for the guitarist:

- Excellent sustain thanks to high stiffness and low sound attenuation.
- Outstanding «attack» thanks to high sound-propagation velocity.
- Durability and scratch-resistance thanks to complete pore closure. Signs of wear and dirt are greatly reduced, while the surface remains open to absorb hand perspiration.
- Optimum playability thanks to hard and smooth surface and thus lower friction resistance of the strings.
- No travel restrictions thanks to the avoidance of endangered wood species.

Picture by Jakob Frank, Canna Guitars.

#### Sonowood advantages for the luthier:

- Authentic wood without any synthetic colours, resins or polymers added.
- Sonowood can be milled particularly well and precisely. This makes it ideal for filigree components (bridges, bridge plates and pins) as well as inlays.
- Sonowood can readily be refretted with a low risk of fiber tearing.
- The frets are easy to hammer in and anchor well in the wood.
- No pore fillers are necessary thanks to the complete pore closure.
- Sonowood can be sanded and polished very well.
- Reliable availability with constant quality.
- No trade restrictions and conservation of value thanks to the avoidance of endangered wood species.
- Leveraging your sales and marketing, as Sonowood is associated with the promotion of sustainable, domestic forestry and the protection of tropical resources.

# What we offer for guitars

Sonowood is available in Maple, Flamed Maple, Walnut and Beech. On demand we also provide other wood species. The wood species make up for an interesting and wide colour spectrum between mocha brown (maple) and dark brown (walnut).

**Sonowood standard blank dimensions** are available in our web-shop: **sonowood.ch**.

Fretboard: Blanks in 540 x 65 x 10 mm

**Bridge:** Blanks for acoustic and electric guitars in 200 x 50 x 20 mm

Customized dimensions are also available. Please contact us: info@swisswoodsolutions.ch

Sonowood Maple (Acer pseudoplatanus)	Plain	Flamed / Curly
Density [kg/m³]	1'200-1'400	
Brinell hardness <sup>a)</sup> [N/mm <sup>2</sup> ]	>80	
Colour	Мосса	
<b>Dimensional stability</b> (Diff. swelling [% per % moisture content change])	Height~0.7 Width~0.3	
Damping (Log. Decrement)	~0.053	
Sound velocity <sup>b)</sup> [m/s]	4'200-5'400	3'800-5'200
Elastic modulus <sup>c)</sup> [N/mm <sup>2</sup> ]	> 21'000	> 17'300

## **Sonowood Walnut** (Juglans spp.)

Density [kg/m³]	1'200-1'400
Brinell hardness <sup>a)</sup> [N/mm <sup>2</sup> ]	> 80
Colour	Dark brown
<b>Dimensional stability</b> (Diff. swelling [% per % moisture content change])	Height~0.74 Width~0.29
Damping (Log. Decrement)	~0.053
Sound velocity <sup>b)</sup> [m/s]	3'200-4'400
Elastic modulus <sup>c)</sup> [N/mm <sup>2</sup> ]	> 12'300

## Sonowood Beech (Fagus sylvatica)

Density [kg/m³]	1'200-1'400
Brinell hardness <sup>a)</sup> [N/mm <sup>2</sup> ]	> 80
Colour	Brown
<b>Dimensional stability</b> (Diff. swelling [% per % moisture content change])	Height~0.7 Width~0.37
Damping (Log. Decrement)	-
Sound velocity <sup>b)</sup> [m/s]	4'200-5'400
Elastic modulus <sup>c)</sup> [N/mm²]	> 21'000

### Comparison values of Ebony

Density [kg/m³]	1'200 – 1'400
Brinell hardness <sup>a)</sup> [N/mm²]	~84
Sound velocity <sup>b)</sup> [m/s]	~ 4′500
	+300

a) perpendicular to grain directionb) in grain directionc) determined via sound velocity

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