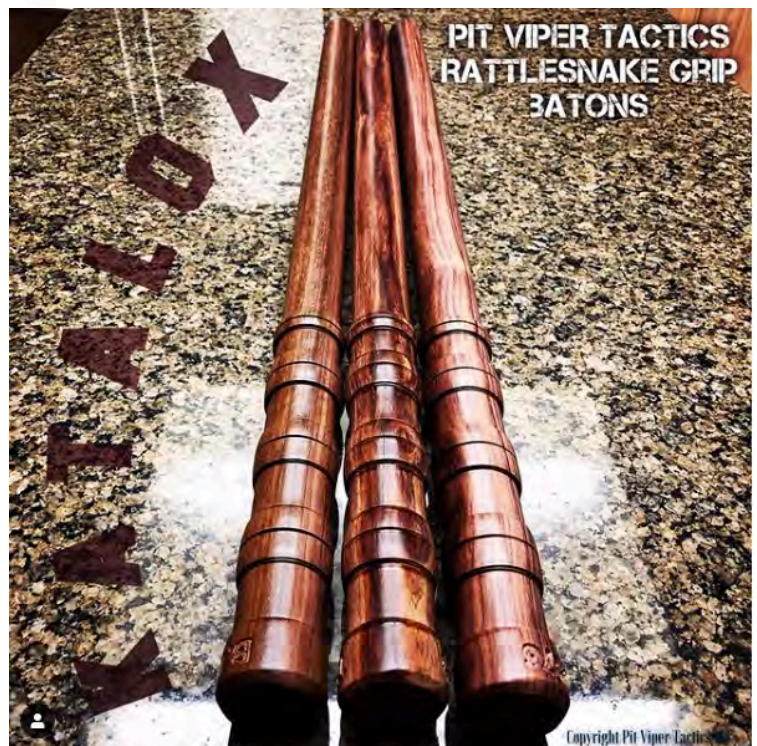
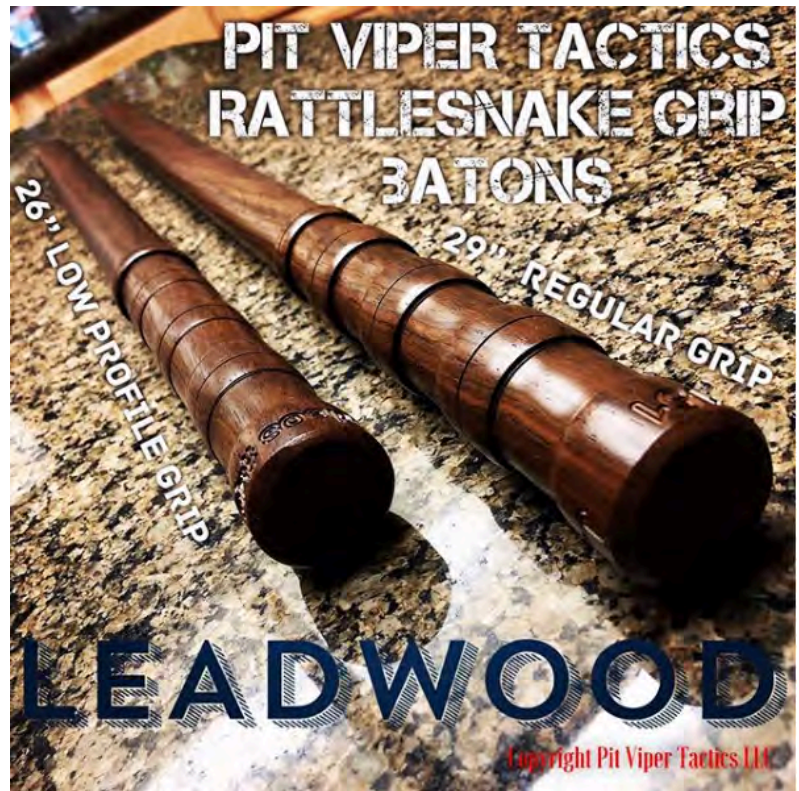






**Common Name(s):** Katalox, Mexican Royal Ebony  
**Scientific Name:** Swartzia spp. (*S. cubensis*)  
**Distribution:** Southern Mexico, Central America, and northern South America  
**Tree Size:** 100-130 ft (30-40 m) tall, 2-4 ft (.6-1.2 m) trunk diameter  
**Average Dried Weight:** 72 lbs/ft<sup>3</sup> (1,150 kg/m<sup>3</sup>)  
**Specific Gravity (Basic, 12% MC):** .94, 1.15  
**Janka Hardness:** 3,660 lb<sub>f</sub> (16,260 N)  
**Modulus of Rupture:** 28,010 lb<sub>f</sub>/in<sup>2</sup> (193.2 MPa)  
**Elastic Modulus:** 3,715,000 lb<sub>f</sub>/in<sup>2</sup> (25.62 GPa)  
**Crushing Strength:** 15,240 lb<sub>f</sub>/in<sup>2</sup> (105.1 MPa)  
**Shrinkage:** Radial: 3.9%, Tangential: 7.6%, Volumetric: 11.2%, T/R Ratio: 1.9





**Common Name(s):** Leadwood

**Scientific Name:** Combretum imberbe

**Distribution:** From South Africa north to Tanzania

**Tree Size:** 32-64 ft (10-20 m) tall, 1-2 ft (.3-.6 m) trunk diameter

**Average Dried Weight:** 76 lbs/ft<sup>3</sup> (1220 kg/m<sup>3</sup>)

**Specific Gravity (Basic, 12% MC):** .96, 1.22

**Janka Hardness:** 3,570 lb<sub>f</sub> (15,880 N)

**Modulus of Rupture:** 20,960 lb<sub>f</sub>/in<sup>2</sup> (144.5 MPa)\*

**Elastic Modulus:** 2,494,000 lb<sub>f</sub>/in<sup>2</sup> (17.20 GPa)\*

**Crushing Strength:** 9,950 lb<sub>f</sub>/in<sup>2</sup> (68.6 MPa)\*

**Shrinkage:** Radial: 2.0%, Tangential: 4.7%, Volumetric: 6.8%, T/R Ratio: 2.4\*

\*Strength and shrinkage values are for the closely related *Combretum schumannii*



**Common Name(s):** Ipe, Brazilian Walnut, Lapacho

**Scientific Name:** Handroanthus spp. (formerly placed in the *Tabebuia* genus)

**Distribution:** Tropical Americas (Central and South America); also farmed commercially

**Tree Size:** 100-130 ft (30-40 m) tall, 2-4 ft (.6-1.2 m) trunk diameter

**Average Dried Weight:** 69 lbs/ft<sup>3</sup> (1,100 kg/m<sup>3</sup>)

**Specific Gravity (Basic, 12% MC):** .91, 1.10

**Janka Hardness:** 3,510 lb<sub>f</sub> (15,620 N)

**Modulus of Rupture:** 25,660 lb<sub>f</sub>/in<sup>2</sup> (177.0 MPa)

**Elastic Modulus:** 3,200,000 lb<sub>f</sub>/in<sup>2</sup> (22.07 GPa)

**Crushing Strength:** 13,600 lb<sub>f</sub>/in<sup>2</sup> (93.8 MPa)

**Shrinkage:** Radial: 5.9%, Tangential: 7.2%, Volumetric: 12.4%, T/R Ratio: 1.2





**Common Name(s):** Macassar Ebony, Striped Ebony, Amara Ebony

**Scientific Name:** Diospyros celebica

**Distribution:** Southeast Asia

**Tree Size:** 50-65 ft (15-20m) tall, 1.5 ft (.4 m) trunk diameter

**Average Dried Weight:** 70 lbs/ft<sup>3</sup> (1,120 kg/m<sup>3</sup>)

**Specific Gravity (Basic, 12% MC):** .89, 1.12

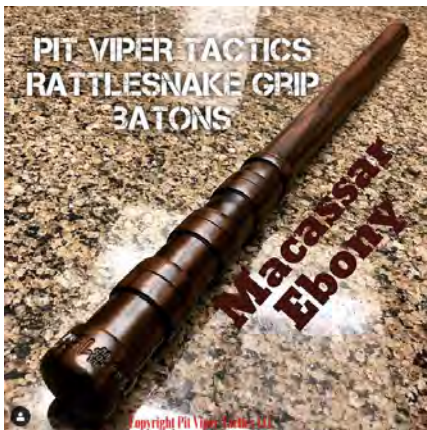
**Janka Hardness:** 3,220 lbf (14,140 N)

**Modulus of Rupture:** 22,790 lbf/in<sup>2</sup> (157.2 MPa)

**Elastic Modulus:** 2,515,000 lbf/in<sup>2</sup> (17.35 GPa)

**Crushing Strength:** 11,630 lbf/in<sup>2</sup> (80.2 MPa)

**Shrinkage:** No data available



**Common Name(s):** Cocobolo, Cocobola, Cocabola

**Scientific Name:** Dalbergia retusa

**Distribution:** Central America

**Tree Size:** 45-60 ft (14-18 m) tall,  
1.5-2 ft (50-60 cm) trunk diameter

**Average Dried Weight:** 69 lbs/ft<sup>3</sup> (1,095 kg/m<sup>3</sup>)

**Specific Gravity (Basic, 12% MC):** .89, 1.10

**Janka Hardness:** 2,960 lb<sub>f</sub> (14,140 N)

**Modulus of Rupture:** 22,910 lb<sub>f</sub>/in<sup>2</sup> (158.0 MPa)\*

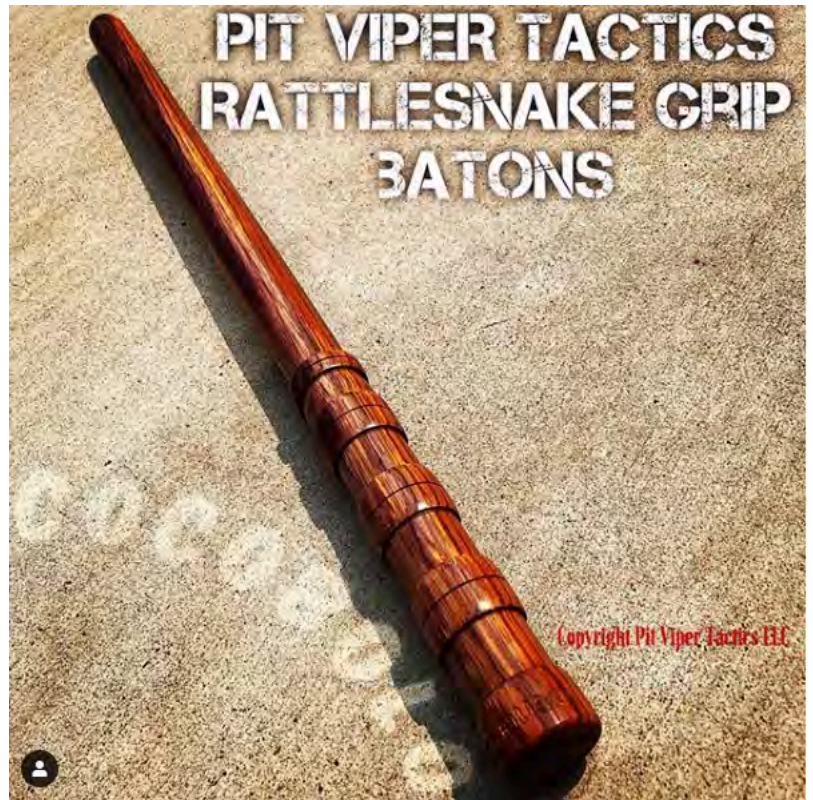
**Elastic Modulus:** 2,712,000 lb<sub>f</sub>/in<sup>2</sup> (18.70 GPa)\*

**Crushing Strength:** 11,790 lbf/in<sup>2</sup> (81.3 MPa)\*

*\*values from tentative strength group assessment  
per South American Timbers*

**Shrinkage:** Radial: 2.7%, Tangential: 4.3%,

Volumetric: 7.0%, T/R Ratio: 1.6



**Common Name(s):** Bloodwood, Satine

**Scientific Name:** Brosimum rubescens (syn. B. paraense)

**Distribution:** Tropical South America

**Tree Size:** 80-150 ft (25-45 m) tall, 4-7 ft (1.2-2.1 m) trunk diameter

**Average Dried Weight:** 66 lbs/ft<sup>3</sup> (1,050 kg/m<sup>3</sup>)

**Specific Gravity (Basic, 12% MC):** .90, 1.05

**Janka Hardness:** 2,900 lb<sub>f</sub> (12,900 N)

**Modulus of Rupture:** 25,290 lb<sub>f</sub>/in<sup>2</sup> (174.4 MPa)

**Elastic Modulus:** 3,013,000 lb<sub>f</sub>/in<sup>2</sup> (20.78 GPa)

**Crushing Strength:** 14,310 lb<sub>f</sub>/in<sup>2</sup> (98.7 MPa)

**Shrinkage:** Radial: 4.6%, Tangential: 7.0%, Volumetric: 11.7%, T/R Ratio: 1.5



**Common Name(s):** Jatoba, Brazilian Cherry

**Scientific Name:** Hymenaea courbaril

**Distribution:** Central America, southern Mexico, northern South America, and the West Indies

**Tree Size:** 100-130 ft (30-40 m) tall, 2-4 ft (.6-1.2 m) trunk diameter

**Average Dried Weight:** 57 lbs/ft<sup>3</sup> (910 kg/m<sup>3</sup>)

**Specific Gravity (Basic, 12% MC):** .77, .91

**Janka Hardness:** 2,690 lb<sub>f</sub> (11,950 N)

**Modulus of Rupture:** 22,510 lb<sub>f</sub>/in<sup>2</sup> (155.2 MPa)

**Elastic Modulus:** 2,745,000 lb<sub>f</sub>/in<sup>2</sup> (18.93 GPa)

**Crushing Strength:** 11,780 lb<sub>f</sub>/in<sup>2</sup> (81.2 MPa)

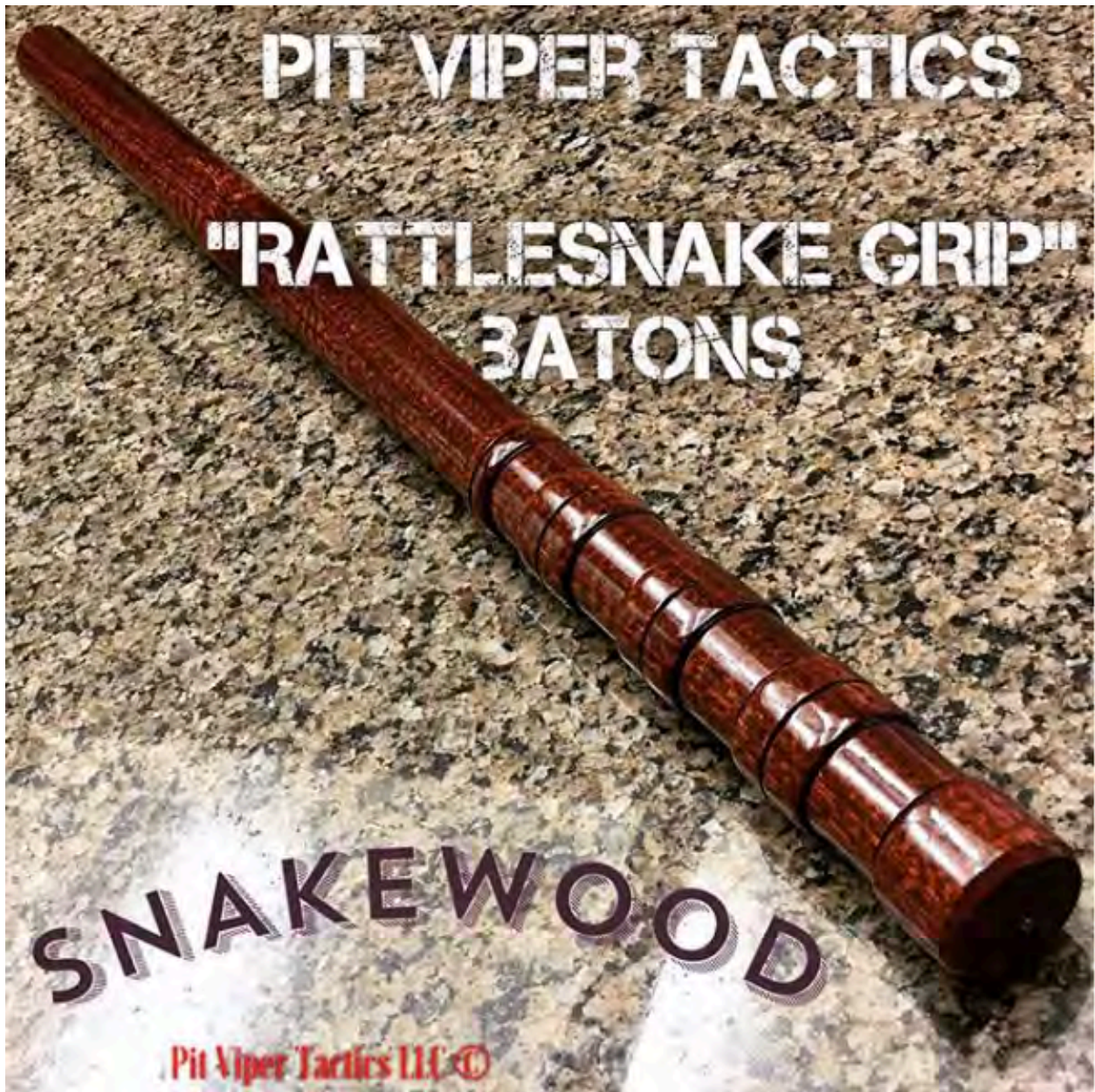
**Shrinkage:** Radial: 4.2%, Tangential: 8.0%, Volumetric: 12.1%, T/R Ratio: 1.9





**Common Name(s):** Purpleheart, Amaranth  
**Scientific Name:** Peltogyne spp.  
**Distribution:** Central and South America (from Mexico down to southern Brazil)  
**Tree Size:** 100-170 ft (30-50 m) tall, 3-5 ft (1-1.5 m) trunk diameter  
**Average Dried Weight:** 56 lbs/ft<sup>3</sup> (905 kg/m<sup>3</sup>)  
**Specific Gravity (Basic, 12% MC):** .76, .90  
**Janka Hardness:** 2,520 lb<sub>f</sub> (11,190 N)  
**Modulus of Rupture:** 22,000 lb<sub>f</sub>/in<sup>2</sup> (151.7 MPa)  
**Elastic Modulus:** 2,937,000 lb<sub>f</sub>/in<sup>2</sup> (20.26 GPa)  
**Crushing Strength:** 12,140 lb<sub>f</sub>/in<sup>2</sup> (83.7 MPa)  
**Shrinkage:** Radial: 3.8%, Tangential: 6.4%, Volumetric: 10.6%, T/R Ratio: 1.7





**Common Name(s):** Snakewood, Letterwood, Amourette

**Scientific Name:** Brosimum guianense (syn. Piratinera guianensis)

**Distribution:** Coastal regions of northeast South America

**Tree Size:** 65-80 ft (20-25 m) tall, 6-12 in (15-30 cm) trunk diameter

**Average Dried Weight:** 76 lbs/ft<sup>3</sup> (1,210 kg/m<sup>3</sup>)

**Specific Gravity (Basic, 12% MC):** .96, 1.21

**Janka Hardness:** 3,800 lb<sub>f</sub> (16,900 N)

**Modulus of Rupture:** 28,270 lb<sub>f</sub>/in<sup>2</sup> (195.0 MPa)

**Elastic Modulus:** 3,364,000 lb<sub>f</sub>/in<sup>2</sup> (23.20 GPa)

**Crushing Strength:** 17,260 lb<sub>f</sub>/in<sup>2</sup> (119.0 MPa)

**Shrinkage:** Radial: 4.7%, Tangential: 6.0%, Volumetric: 10.7%, T/R Ratio: 1.3





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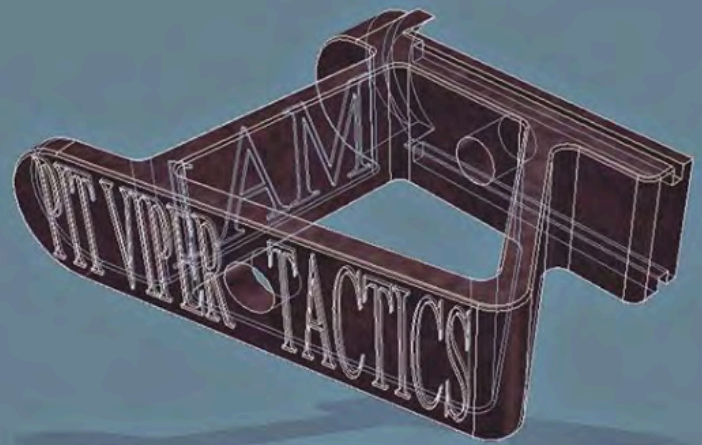


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