

Wood Type	Breaking Strain [1]	Wood energy storage per mass [2]	Strength-to-weight ratio [3]	Density [4]	Strength [5]	Stiffness [6]	Tension vs. Compression Strength [7]
Alligator Juniper	Extreme	Low	Low	Moderate	Low	Low	Compression
Apple	Very High	Moderate	Low	High	Moderate	Moderate	High Tension
Bamboo	Moderate	Moderate	Extreme	Moderate	Extreme	Extreme	Balanced
Black Cherry	Moderate	Moderate	High	Low	Moderate	High	Compression
Black locust	Very High	Very High	Very High	High	High	High	Tension
Black palm	High	Moderate	Moderate	Very High	Very High	Very High	Tension
Black walnut	Moderate	High	Very High	Moderate	High	High	Tension
Bubinga	High	Very High	Extreme	Very High	Extreme	Very High	High Tension
Bulletwood	Moderate	High	Extreme	Extreme	Extreme	Extreme	High Tension
Cascara Buckthorn	High	Low	Low	Moderate	Low	Low	Compression
Cocobolo	Moderate	Moderate	Moderate	Extreme	Very High	Very High	Tension
Dogwood	High	Moderate	Moderate	High	High	High	Tension
Eastern Redcedar	Very High	Moderate	Low	Low	Low	Low	Compression
Greenheart	Low	High	Extreme	Extreme	Extreme	Extreme	High Tension
Hackberry	High	Moderate	Low	Moderate	Moderate	Moderate	High Tension
Hard maple	Moderate	High	High	High	High	High	High Tension
Holly	High	Moderate	Low	Moderate	Low	Low	Balanced
Honey Locust	High	Moderate	Moderate	High	High	High	Tension
Hophornbeam	Moderate	Moderate	Low	High	Moderate	High	Balanced
Ipe	Moderate	High	Very High	Extreme	Extreme	Extreme	Tension
Jatoba	Moderate	High	Very High	Very High	Very High	Very High	Tension
Koa	Moderate	Moderate	Moderate	Moderate	Moderate	High	Balanced
Lancewood	Moderate	High	Very High	Very High	Very High	Very High	Unknown
Lemonwood	Very High	Extreme	Extreme	High	Very High	Very High	High Tension
Leyland cypress	Extreme	Extreme	Very High	Low	Moderate	Low	High Tension
Madagascar rosewood	Extreme	Extreme	Extreme	Very High	Extreme	High	High Tension
Mulberry	Moderate	Moderate	Low	Moderate	Moderate	Moderate	Compression
Muninga	Extreme	Extreme	Very High	Moderate	Moderate	Moderate	Balanced
Oregon ash	High	High	Moderate	Moderate	Moderate	Moderate	High Tension
Osage orange	Extreme	Very High	High	Very High	High	High	Tension
Pacific yew	Extreme	Very High	High	High	High	Moderate	Tension
Padauk	Very High	Very High	High	Very High	Very High	High	High Tension
Pear	Extreme	High	Low	Moderate	Moderate	Low	Tension
Pecan	Moderate	Moderate	Low	High	Moderate	High	Balanced
Persimmon	High	High	High	High	High	High	Tension
Pignut hickory	High	High	Very High	High	Very High	Very High	High Tension
Plum	Moderate	Low	Low	High	Moderate	High	Unknown
Poplar	Terrible	Low	High	Low	Low	High	Balanced
Port orford cedar	Low	High	Extreme	Low	Moderate	High	High Tension
Purpleheart	Low	Moderate	Very High	Very High	Very High	Extreme	Balanced
Quaking aspen	Terrible	Low	Moderate	Low	Low	Moderate	Tension
Red (Slippery) elm	High	High	High	Moderate	Moderate	High	High Tension
Red Alder	Terrible	Moderate	High	Low	Low	Moderate	Compression
Red oak	Moderate	Moderate	Moderate	High	High	High	High Tension
Redheart	Very High	High	High	Moderate	Moderate	High	High Tension
Rock Elm	Very High	High	Moderate	High	High	High	High Tension
Rowan	Extreme	Extreme	High	High	High	High	High Tension
Shagbark hickory	Very High	Very High	Very High	High	Very High	Very High	High Tension
Siamese rosewood	Extreme	Very High	Very High	Extreme	Extreme	Very High	Compression
Wenge	Moderate	High	Very High	Very High	Very High	Very High	Tension
White ash	Moderate	High	High	Moderate	High	High	High Tension
White oak	Moderate	Moderate	Moderate	High	High	High	High Tension
Zapote	High	Very High	Extreme	Extreme	Extreme	Extreme	High Tension
Ziricote	Extreme	High	Moderate	High	High	High	Balanced

Wood Type	Breaking Strain	Wood energy storage per mass	Strength-to-weight ratio	Density	Strength	Stiffness	Tension vs. Compression Strength
Madagascar rosewood	Extreme	Extreme	Extreme	Very High	Extreme	High	High Tension
Leyland cypress	Extreme	Extreme	Very High	Low	Moderate	Low	High Tension
Rowan	Extreme	Extreme	High	High	High	High	High Tension
Pacific yew	Extreme	Very High	High	High	High	Moderate	Tension
Muninga	Extreme	Extreme	Very High	Moderate	Moderate	Moderate	Balanced
Osage orange	Extreme	Very High	High	Very High	High	High	Tension
Pear	Extreme	High	Low	Moderate	Moderate	Low	Tension
Siamese rosewood	Extreme	Very High	Very High	Extreme	Extreme	Very High	Compression
Ziricote	Extreme	High	Moderate	High	High	High	Balanced
Alligator Juniper	Extreme	Low	Low	Moderate	Low	Low	Compression
Apple	Very High	Moderate	Low	High	Moderate	Moderate	High Tension
Eastern Redcedar	Very High	Moderate	Low	Low	Low	Low	Compression
Padauk	Very High	Very High	High	Very High	Very High	High	High Tension
Lemonwood	Very High	Extreme	Extreme	High	Very High	Very High	High Tension
Rock Elm	Very High	High	Moderate	High	High	High	High Tension
Redheart	Very High	High	High	Moderate	Moderate	High	High Tension
Black locust	Very High	Very High	Very High	High	High	High	Tension
Shagbark hickory	Very High	Very High	Very High	High	Very High	Very High	High Tension
Oregon ash	High	High	Moderate	Moderate	Moderate	Moderate	High Tension
Holly	High	Moderate	Low	Moderate	Low	Low	Balanced
Hackberry	High	Moderate	Low	Moderate	Moderate	Moderate	High Tension
Bubinga	High	Very High	Extreme	Very High	Extreme	Very High	High Tension
Cascara Buckthorn	High	Low	Low	Moderate	Low	Low	Compression
Zapote	High	Very High	Extreme	Extreme	Extreme	Extreme	High Tension
Honey Locust	High	Moderate	Moderate	High	High	High	Tension
Pignut hickory	High	High	Very High	High	Very High	Very High	High Tension
Black palm	High	Moderate	Moderate	Very High	Very High	Very High	Tension
Persimmon	High	High	High	High	High	High	Tension
Red (Slippery) elm	High	High	High	Moderate	Moderate	High	High Tension
Dogwood	High	Moderate	Moderate	High	High	High	Tension
Black walnut	Moderate	High	Very High	Moderate	High	High	Tension
Wenge	Moderate	High	Very High	Very High	Very High	Very High	Tension
Plum	Moderate	Low	Low	High	Moderate	High	Unknown
Mulberry	Moderate	Moderate	Low	Moderate	Moderate	Moderate	Compression
Hard maple	Moderate	High	High	High	High	High	High Tension
White ash	Moderate	High	High	Moderate	High	High	High Tension
Cocobolo	Moderate	Moderate	Moderate	Extreme	Very High	Very High	Tension
White oak	Moderate	Moderate	Moderate	Moderate	High	High	Balanced
Bamboo	Moderate	Very High	Extreme	High	Very High	Very High	Tension
Koa	Moderate	Moderate	Moderate	Moderate	Moderate	High	Balanced
Bulletwood	Moderate	High	Extreme	Extreme	Extreme	Extreme	High Tension
Hophornbeam	Moderate	Moderate	Low	High	Moderate	High	Balanced
Black Cherry	Moderate	Moderate	High	Low	Moderate	High	Compression
Jatoba	Moderate	High	Very High	Very High	Very High	Very High	Tension
Lancewood	Moderate	High	Very High	Very High	Very High	Very High	Unknown
Red oak	Moderate	Moderate	Moderate	High	High	High	High Tension
Ipe	Moderate	High	Very High	Extreme	Extreme	Extreme	Tension
Pecan	Moderate	Moderate	Low	High	Moderate	High	Balanced
Greenheart	Low	High	Extreme	Extreme	Extreme	Extreme	High Tension
Purpleheart	Low	Moderate	Very High	Very High	Very High	Extreme	Balanced
Port orford cedar	Low	High	Extreme	Low	Moderate	High	High Tension
Quaking aspen	Terrible	Low	Moderate	Low	Low	Moderate	Tension
Red Alder	Terrible	Moderate	High	Low	Low	Moderate	Compression
Poplar	Terrible	Low	High	Low	Low	High	Balanced

Energy Storage per Mass

Wood Type	Breaking Strain	Wood energy storage per mass	Strength-to-weight ratio	Density	Strength	Stiffness	Tension vs. Compression Strength
Madagascar rosewood	Extreme	Extreme	Extreme	Very High	Extreme	High	High Tension
Leyland cypress	Extreme	Extreme	Very High	Low	Moderate	Low	High Tension
Muninga	Extreme	Extreme	Very High	Moderate	Moderate	Moderate	Balanced
Lemonwood	Very High	Extreme	Extreme	High	Very High	Very High	High Tension
Rowan	Extreme	Extreme	High	High	High	High	High Tension
Siamese rosewood	Extreme	Very High	Very High	Extreme	Extreme	Very High	Compression
Bubinga	High	Very High	Extreme	Very High	Extreme	Very High	High Tension
Bamboo	Moderate	Very High	Extreme	High	Very High	Very High	Tension
Pacific yew	Extreme	Very High	High	High	High	Moderate	Tension
Osage orange	Extreme	Very High	High	Very High	High	High	Tension
Black locust	Very High	Very High	Very High	High	High	High	Tension
Shagbark hickory	Very High	Very High	Very High	High	Very High	Very High	High Tension
Zapote	High	Very High	Extreme	Extreme	Extreme	Extreme	High Tension
Padauk	Very High	Very High	High	Very High	Very High	High	High Tension
Wenge	Moderate	High	Very High	Very High	Very High	Very High	Tension
Pignut hickory	High	High	Very High	High	Very High	Very High	High Tension
Bulletwood	Moderate	High	Extreme	Extreme	Extreme	Extreme	High Tension
Redheart	Very High	High	High	Moderate	Moderate	High	High Tension
Ziricote	Extreme	High	Moderate	High	High	High	Balanced
Black walnut	Moderate	High	Very High	Moderate	High	High	Tension
Jatoba	Moderate	High	Very High	Very High	Very High	Very High	Tension
Greenheart	Low	High	Extreme	Extreme	Extreme	Extreme	High Tension
Lancewood	Moderate	High	Very High	Very High	Very High	Very High	Unknown
Oregon ash	High	High	Moderate	Moderate	Moderate	Moderate	High Tension
Port orford cedar	Low	High	Extreme	Low	Moderate	High	High Tension
Hard maple	Moderate	High	High	High	High	High	High Tension
White ash	Moderate	High	High	Moderate	High	High	High Tension
Red (Slippery) elm	High	High	High	Moderate	Moderate	High	High Tension
Rock Elm	Very High	High	Moderate	High	High	High	High Tension
Persimmon	High	High	High	High	High	High	Tension
Pear	Extreme	High	Low	Moderate	Moderate	Low	Tension
Ipe	Moderate	High	Very High	Extreme	Extreme	Extreme	Tension
Purpleheart	Low	Moderate	Very High	Very High	Very High	Extreme	Unknown
Black palm	High	Moderate	Moderate	Very High	Very High	Very High	Tension
Black Cherry	Moderate	Moderate	High	Low	Moderate	High	Compression
Dogwood	High	Moderate	Moderate	High	High	High	Tension
Honey Locust	High	Moderate	Moderate	High	High	High	Tension
Cocobolo	Moderate	Moderate	Moderate	Moderate	Very High	Very High	Balanced
Koa	Moderate	Moderate	Moderate	Moderate	Moderate	High	Balanced
Hackberry	High	Moderate	Low	Moderate	Moderate	Moderate	High Tension
Red oak	Moderate	Moderate	Moderate	High	High	High	High Tension
Eastern Redcedar	Very High	Moderate	Low	Low	Low	Low	Compression
White oak	Moderate	Moderate	Moderate	High	High	High	High Tension
Apple	Very High	Moderate	Low	High	Moderate	Moderate	High Tension
Red Alder	Terrible	Moderate	High	Low	Low	Moderate	Unknown
Holly	High	Moderate	Low	Moderate	Low	Low	Balanced
Hophornbeam	Moderate	Moderate	Low	High	Moderate	High	Balanced
Pecan	Moderate	Moderate	Low	High	Moderate	High	Balanced
Mulberry	Moderate	Moderate	Low	Moderate	Moderate	Moderate	Compression
Quaking aspen	Terrible	Low	Moderate	Low	Low	Moderate	Tension
Poplar	Terrible	Low	High	Low	Low	High	Balanced
Plum	Moderate	Low	Low	High	Moderate	High	Unknown
Cascara Buckthorn	High	Low	Low	Moderate	Low	Low	Compression
Alligator Juniper	Extreme	Low	Low	Moderate	Low	Low	Compression

Wood Type	Breaking Strain	Wood energy storage per mass	Strength-to-weight ratio	Density	Strength	Stiffness	Tension vs. Compression Strength
Bamboo	Moderate	Very High	Extreme	High	Very High	Very High	Tension
Bubinga	High	Very High	Extreme	Very High	Extreme	Very High	High Tension
Lemonwood	Very High	Extreme	Extreme	High	Very High	Very High	High Tension
Greenheart	Low	High	Extreme	Extreme	Extreme	Extreme	High Tension
Port orford cedar	Low	High	Extreme	Low	Moderate	High	High Tension
Madagascar rosewood	Extreme	Extreme	Extreme	Very High	Extreme	High	High Tension
Bulletwood	Moderate	High	Extreme	Extreme	Extreme	Extreme	High Tension
Zapote	High	Very High	Extreme	Extreme	Extreme	Extreme	High Tension
Black locust	Very High	Very High	Very High	High	High	High	Tension
Shagbark hickory	Very High	Very High	Very High	High	Very High	Very High	High Tension
Wenge	Moderate	High	Very High	Very High	Very High	Very High	Tension
Jatoba	Moderate	High	Very High	Very High	Very High	Very High	Tension
Purpleheart	Low	Moderate	Very High	Very High	Very High	Extreme	Balanced
Pignut hickory	High	High	Very High	High	Very High	Very High	High Tension
Lancewood	Moderate	High	Very High	Very High	Very High	Very High	Unknown
Siamese rosewood	Extreme	Very High	Very High	Extreme	Extreme	Very High	Compression
Leyland cypress	Extreme	Extreme	Very High	Low	Moderate	Low	High Tension
Black walnut	Moderate	High	Very High	Moderate	High	High	Tension
Muninga	Extreme	Extreme	Very High	Moderate	Moderate	Moderate	Balanced
Ipe	Moderate	High	Very High	Extreme	Extreme	Extreme	Tension
Rowan	Extreme	Extreme	High	High	High	High	High Tension
Padauk	Very High	Very High	High	Very High	Very High	High	High Tension
Redheart	Very High	High	High	Moderate	Moderate	High	High Tension
Hard maple	Moderate	High	High	High	High	High	High Tension
White ash	Moderate	High	High	Moderate	High	High	High Tension
Black Cherry	Moderate	Moderate	High	Low	Moderate	High	Compression
Poplar	Terrible	Low	High	Low	Low	High	Balanced
Osage orange	Extreme	Very High	High	Very High	High	High	Tension
Red (Slippery) elm	High	High	High	Moderate	Moderate	High	High Tension
Red Alder	Terrible	Moderate	High	Low	Low	Moderate	Compression
Pacific yew	Extreme	Very High	High	High	High	Moderate	Tension
Persimmon	High	High	High	High	High	High	Tension
Oregon ash	High	High	Moderate	Moderate	Moderate	Moderate	Unknown
Cocobolo	Moderate	Moderate	Moderate	Extreme	Very High	Very High	Tension
Koa	Moderate	Moderate	Moderate	Moderate	Moderate	High	Balanced
Black palm	High	Moderate	Moderate	Very High	Very High	Very High	Tension
Red oak	Moderate	Moderate	Moderate	High	High	High	High Tension
Dogwood	Moderate	Moderate	Moderate	Moderate	High	High	Balanced
Ziricote	Extreme	High	Moderate	High	High	High	Balanced
Quaking aspen	Terrible	Low	Moderate	Low	Low	Moderate	Tension
Rock Elm	Very High	High	Moderate	High	High	High	High Tension
White oak	Moderate	Moderate	Moderate	High	High	High	High Tension
Honey Locust	High	Moderate	Moderate	High	High	High	Tension
Pecan	Moderate	Moderate	Low	High	Moderate	High	Balanced
Hackberry	High	Moderate	Low	Moderate	Moderate	Moderate	Unknown
Hophornbeam	Moderate	Moderate	Low	High	Moderate	High	Balanced
Pear	Extreme	High	Low	Moderate	Moderate	Low	Tension
Mulberry	Moderate	Moderate	Low	Moderate	Moderate	Moderate	Compression
Eastern Redcedar	Very High	Moderate	Low	Low	Low	Low	Compression
Plum	Moderate	Low	Low	High	Moderate	High	Unknown
Holly	High	Moderate	Low	Moderate	Low	Low	Balanced
Apple	Very High	Moderate	Low	High	Moderate	Moderate	High Tension
Cascara Buckthorn	High	Low	Low	Moderate	Low	Low	Compression
Alligator Juniper	Extreme	Low	Low	Moderate	Low	Low	Compression

Wood Type	Breaking Strain	Wood energy storage per mass	Strength-to-weight ratio	Density	Strength	Stiffness	Tension vs. Compression Strength
Ipe	Moderate	High	Very High	Extreme	Extreme	Extreme	Tension
Cocobolo	Moderate	Moderate	Moderate	Extreme	Very High	Very High	Tension
Bulletwood	Moderate	High	Extreme	Extreme	Extreme	Extreme	High Tension
Zapote	High	Very High	Extreme	Extreme	Extreme	Extreme	High Tension
Siamese rosewood	Extreme	Very High	Very High	Extreme	Extreme	Very High	Compression
Greenheart	Low	High	Extreme	Extreme	Extreme	Extreme	High Tension
Lancewood	Moderate	High	Very High	Very High	Very High	Very High	Unknown
Black palm	High	Moderate	Moderate	Very High	Very High	Very High	Tension
Madagascar rosewood	Extreme	Extreme	Extreme	Very High	Extreme	High	High Tension
Jatoba	Moderate	High	Very High	Very High	Very High	Very High	Tension
Purpleheart	Low	Moderate	Very High	Very High	Very High	Extreme	Balanced
Bubinga	High	Very High	Extreme	Very High	Extreme	Very High	High Tension
Wenge	Moderate	High	Very High	Very High	Very High	Very High	Tension
Padauk	Very High	Very High	High	Very High	Very High	High	High Tension
Osage orange	Extreme	Very High	High	Very High	High	High	Tension
Apple	Very High	Moderate	Low	High	Moderate	Moderate	High Tension
Persimmon	High	High	High	High	High	High	Tension
Pignut hickory	High	High	Very High	High	Very High	Very High	High Tension
Dogwood	High	Moderate	Moderate	High	High	High	Tension
Lemonwood	Very High	Extreme	Extreme	High	Very High	Very High	High Tension
Ziricote	Extreme	High	Moderate	High	High	High	Balanced
Shagbark hickory	Very High	Very High	Very High	High	Very High	Very High	High Tension
Bamboo	Moderate	Very High	Extreme	High	Very High	Very High	Tension
Hophornbeam	Moderate	Moderate	Low	High	Moderate	High	Balanced
Plum	Moderate	Low	Low	High	Moderate	High	Unknown
Rowan	Extreme	Extreme	High	High	High	High	High Tension
Black locust	Very High	Very High	Very High	High	High	High	Tension
White oak	Moderate	Moderate	Moderate	High	High	High	High Tension
Honey Locust	High	Moderate	Moderate	High	High	High	Tension
Rock Elm	Very High	High	Moderate	High	High	High	High Tension
Pecan	Moderate	Moderate	Low	High	Moderate	High	Balanced
Pacific yew	Extreme	Very High	High	High	High	Moderate	Tension
Hard maple	Moderate	High	High	High	High	High	Unknown
Red oak	Moderate	Moderate	Moderate	High	High	High	High Tension
Mulberry	Moderate	Moderate	Low	Moderate	Moderate	Moderate	Compression
Pear	Extreme	High	Low	Moderate	Moderate	Low	Tension
White ash	Moderate	High	High	Moderate	High	High	High Tension
Redheart	Moderate	Moderate	High	Moderate	Moderate	High	Balanced
Holly	High	Moderate	Low	Moderate	Low	Low	Balanced
Cascara Buckthorn	High	Low	Low	Moderate	Low	Low	Compression
Black walnut	Moderate	High	Very High	Moderate	High	High	Tension
Koa	Moderate	Moderate	Moderate	Moderate	Moderate	High	Balanced
Oregon ash	High	High	Moderate	Moderate	Moderate	Moderate	High Tension
Hackberry	High	Moderate	Low	Moderate	Moderate	Moderate	High Tension
Muninga	Extreme	Extreme	Very High	Moderate	Moderate	Moderate	Unknown
Red (Slippery) elm	High	High	High	Moderate	Moderate	High	High Tension
Alligator Juniper	Extreme	Low	Low	Moderate	Low	Low	Compression
Black Cherry	Moderate	Moderate	High	Low	Moderate	High	Compression
Eastern Redcedar	Very High	Moderate	Low	Low	Low	Low	Compression
Leyland cypress	Extreme	Extreme	Very High	Low	Moderate	Low	High Tension
Port orford cedar	Low	High	Extreme	Low	Moderate	High	High Tension
Poplar	Terrible	Low	High	Low	Low	High	Balanced
Red Alder	Terrible	Moderate	High	Low	Low	Moderate	Compression
Quaking aspen	Terrible	Low	Moderate	Low	Low	Moderate	Tension

Wood Type	Breaking Strain	Wood energy storage per mass	Strength-to-weight ratio	Density	Strength	Stiffness	Tension vs. Compression Strength
Bulletwood	Moderate	High	Extreme	Extreme	Extreme	Extreme	High Tension
Greenheart	Low	High	Extreme	Extreme	Extreme	Extreme	High Tension
Zapote	High	Very High	Extreme	Extreme	Extreme	Extreme	High Tension
Ipe	Moderate	High	Very High	Extreme	Extreme	Extreme	Tension
Siamese rosewood	Extreme	Very High	Very High	Extreme	Extreme	Very High	Compression
Bubinga	High	Very High	Extreme	Very High	Extreme	Very High	High Tension
Madagascar rosewood	Extreme	Extreme	Extreme	Very High	Extreme	High	High Tension
Lancewood	Moderate	High	Very High	Very High	Very High	Very High	Unknown
Bamboo	Moderate	Very High	Extreme	High	Very High	Very High	Tension
Cocobolo	Moderate	Moderate	Moderate	Extreme	Very High	Very High	Tension
Jatoba	Moderate	High	Very High	Very High	Very High	Very High	Tension
Lemonwood	Very High	Extreme	Extreme	High	Very High	Very High	High Tension
Purpleheart	Low	Moderate	Very High	Very High	Very High	Extreme	Balanced
Wenge	Moderate	High	Very High	Very High	Very High	Very High	Tension
Shagbark hickory	Very High	Very High	Very High	High	Very High	Very High	High Tension
Padauk	Very High	Very High	High	Very High	Very High	High	High Tension
Pignut hickory	High	High	Very High	High	Very High	Very High	High Tension
Black palm	High	Moderate	Moderate	Very High	Very High	Very High	Tension
Black locust	Very High	Very High	Very High	High	High	High	Tension
Osage orange	Extreme	Very High	High	Very High	High	High	Tension
Persimmon	High	High	High	High	High	High	Tension
Rowan	Extreme	Extreme	High	High	High	High	High Tension
Dogwood	High	Moderate	Moderate	High	High	High	Tension
Ziricote	Extreme	High	Moderate	High	High	High	Balanced
Hard maple	Moderate	High	High	High	High	High	High Tension
Pacific yew	Extreme	Very High	High	High	High	Moderate	Tension
White ash	Moderate	High	High	Moderate	High	High	High Tension
White oak	Moderate	Moderate	Moderate	High	High	High	High Tension
Rock Elm	Very High	High	Moderate	High	High	High	High Tension
Honey Locust	High	Moderate	Moderate	High	High	High	Tension
Black walnut	Moderate	High	Very High	Moderate	High	High	Tension
Red oak	Moderate	Moderate	Moderate	High	High	High	High Tension
Redheart	Very High	High	High	Moderate	Moderate	High	Unknown
Muninga	Extreme	Extreme	Very High	Moderate	Moderate	Moderate	Balanced
Hophornbeam	Moderate	Moderate	Low	High	Moderate	High	Balanced
Pecan	Moderate	Moderate	Low	High	Moderate	High	Balanced
Red (Slippery) elm	High	High	High	Moderate	Moderate	High	High Tension
Plum	Moderate	Moderate	Low	Moderate	Moderate	High	Unknown
Apple	Very High	Moderate	Low	High	Moderate	Moderate	High Tension
Oregon ash	High	High	Moderate	Moderate	Moderate	Moderate	High Tension
Koa	Moderate	Moderate	Moderate	Moderate	Moderate	High	Balanced
Black Cherry	Moderate	Moderate	High	Low	Moderate	High	Compression
Port orford cedar	Low	High	Extreme	Low	Moderate	High	High Tension
Pear	Extreme	High	Low	Moderate	Moderate	Low	Tension
Leyland cypress	Extreme	Extreme	Very High	Low	Moderate	Low	Unknown
Mulberry	Moderate	Moderate	Low	Moderate	Moderate	Moderate	Compression
Hackberry	High	Moderate	Low	Moderate	Moderate	Moderate	High Tension
Holly	High	Moderate	Low	Moderate	Low	Low	Balanced
Poplar	Terrible	Low	High	Low	Low	High	Balanced
Red Alder	Terrible	Moderate	High	Low	Low	Moderate	Compression
Eastern Redcedar	Very High	Moderate	Low	Low	Low	Low	Compression
Cascara Buckthorn	High	Low	Low	Moderate	Low	Low	Compression
Quaking aspen	Terrible	Low	Moderate	Low	Low	Moderate	Tension
Alligator Juniper	Extreme	Low	Low	Moderate	Low	Low	Compression

Wood Type	Breaking Strain	Wood energy storage per mass	Strength-to-weight ratio	Density	Strength	Stiffness	Tension vs. Compression Strength
Greenheart	Low	High	Extreme	Extreme	Extreme	Extreme	High Tension
Bulletwood	Moderate	High	Extreme	Extreme	Extreme	Extreme	High Tension
Ipe	Moderate	High	Very High	Extreme	Extreme	Extreme	Tension
Zapote	High	Very High	Extreme	Extreme	Extreme	Extreme	High Tension
Purpleheart	Low	Moderate	Very High	Very High	Very High	Extreme	Balanced
Lancewood	Moderate	High	Very High	Very High	Very High	Very High	Unknown
Bamboo	Moderate	Very High	Extreme	High	Very High	Very High	Tension
Jatoba	Moderate	High	Very High	Very High	Very High	Very High	Tension
Cocobolo	Moderate	Moderate	Moderate	Extreme	Very High	Very High	Tension
Bubinga	High	Very High	Extreme	Very High	Extreme	Very High	High Tension
Wenge	Moderate	High	Very High	Very High	Very High	Very High	Tension
Siamese rosewood	Extreme	Very High	Very High	Extreme	Extreme	Very High	Compression
Lemonwood	Very High	Extreme	Extreme	High	Very High	Very High	High Tension
Black palm	High	Moderate	Moderate	Very High	Very High	Very High	Tension
Pignut hickory	High	High	Very High	High	Very High	Very High	High Tension
Shagbark hickory	Very High	Very High	Very High	High	Very High	Very High	High Tension
Black locust	Very High	Very High	Very High	High	High	High	Tension
Padauk	Very High	Very High	High	Very High	Very High	High	High Tension
Persimmon	High	High	High	High	High	High	Tension
Dogwood	High	Moderate	Moderate	High	High	High	Tension
Hard maple	Moderate	High	High	High	High	High	High Tension
White oak	Moderate	Moderate	Moderate	High	High	High	High Tension
Red oak	Moderate	Moderate	Moderate	High	High	High	High Tension
Madagascar rosewood	Extreme	Extreme	Extreme	Very High	Extreme	High	High Tension
White ash	Moderate	High	High	Moderate	High	High	High Tension
Pecan	Moderate	Moderate	Low	High	Moderate	High	Balanced
Hophornbeam	Moderate	Moderate	Low	High	Moderate	High	Balanced
Osage orange	Extreme	Very High	High	Very High	High	High	Tension
Black walnut	Moderate	High	Very High	Moderate	High	High	Tension
Port orford cedar	Low	High	Extreme	Low	Moderate	High	High Tension
Honey Locust	High	Moderate	Moderate	High	High	High	Tension
Ziricote	Extreme	High	Moderate	High	High	High	Balanced
Poplar	Terrible	Low	High	Low	Low	High	Unknown
Rock Elm	Very High	High	Moderate	High	High	High	High Tension
Koa	Moderate	Moderate	Moderate	Moderate	Moderate	High	Balanced
Redheart	Very High	High	High	Moderate	Moderate	High	High Tension
Black Cherry	Moderate	Moderate	High	Low	Moderate	High	Compression
Rowan	Moderate	Moderate	High	Moderate	High	High	Balanced
Red (Slippery) elm	High	High	High	Moderate	Moderate	High	High Tension
Plum	Moderate	Low	Low	High	Moderate	High	Unknown
Red Alder	Terrible	Moderate	High	Low	Low	Moderate	Compression
Oregon ash	High	High	Moderate	Moderate	Moderate	Moderate	High Tension
Mulberry	Moderate	Moderate	Low	Moderate	Moderate	Moderate	Compression
Pacific yew	Extreme	Very High	High	High	High	Moderate	Tension
Apple	Very High	Moderate	Low	High	Moderate	Moderate	Unknown
Muninga	Extreme	Extreme	Very High	Moderate	Moderate	Moderate	Balanced
Hackberry	High	Moderate	Low	Moderate	Moderate	Moderate	High Tension
Quaking aspen	Terrible	Low	Moderate	Low	Low	Moderate	Tension
Pear	Extreme	High	Low	Moderate	Moderate	Low	Tension
Holly	High	Moderate	Low	Moderate	Low	Low	Balanced
Leyland cypress	Extreme	Extreme	Very High	Low	Moderate	Low	High Tension
Cascara Buckthorn	High	Low	Low	Moderate	Low	Low	Compression
Eastern Redcedar	Very High	Moderate	Low	Low	Low	Low	Compression
Alligator Juniper	Extreme	Low	Low	Moderate	Low	Low	Compression

Tension vs. Compression

Wood Type	Breaking Strain	Wood energy storage per mass	Strength-to-weight ratio	Density	Strength	Stiffness	Tension vs. Compression Strength
Lemonwood	Very High	Extreme	Extreme	High	Very High	Very High	High Tension
Padauk	Very High	Very High	High	Very High	Very High	High	High Tension
Bubinga	High	Very High	Extreme	Very High	Extreme	Very High	High Tension
Shagbark hickory	Very High	Very High	Very High	High	Very High	Very High	High Tension
Pignut hickory	High	High	Very High	High	Very High	Very High	High Tension
Leyland cypress	Extreme	Extreme	Very High	Low	Moderate	Low	High Tension
Madagascar rosewood	Extreme	Extreme	Extreme	Very High	Extreme	High	High Tension
Bulletwood	Moderate	High	Extreme	Extreme	Extreme	Extreme	High Tension
Zapote	High	Very High	Extreme	Extreme	Extreme	Extreme	High Tension
Redheart	Very High	High	High	Moderate	Moderate	High	High Tension
Apple	Very High	Moderate	Low	High	Moderate	Moderate	High Tension
Red oak	Moderate	Moderate	Moderate	High	High	High	High Tension
Rock Elm	Very High	High	Moderate	High	High	High	High Tension
Oregon ash	High	High	Moderate	Moderate	Moderate	Moderate	High Tension
Rowan	Extreme	Extreme	High	High	High	High	High Tension
Red (Slippery) elm	High	High	High	Moderate	Moderate	High	High Tension
White ash	Moderate	High	High	Moderate	High	High	High Tension
Hackberry	High	Moderate	Low	Moderate	Moderate	Moderate	High Tension
Port orford cedar	Low	High	Extreme	Low	Moderate	High	High Tension
Greenheart	Low	High	Extreme	Extreme	Extreme	Extreme	High Tension
Hard maple	Moderate	High	High	High	High	High	High Tension
White oak	Moderate	Moderate	Moderate	High	High	High	High Tension
Osage orange	Extreme	Very High	High	Very High	High	High	Tension
Quaking aspen	Terrible	Low	Moderate	Low	Low	Moderate	Tension
Honey Locust	High	Moderate	Moderate	High	High	High	Tension
Black palm	High	Moderate	Moderate	Very High	Very High	Very High	Tension
Cocobolo	Moderate	Moderate	Moderate	Extreme	Very High	Very High	Tension
Persimmon	High	High	High	High	High	High	Tension
Black walnut	Moderate	High	Very High	Moderate	High	High	Tension
Dogwood	High	Moderate	Moderate	High	High	High	Tension
Black locust	Very High	Very High	Very High	High	High	High	Tension
Pear	Extreme	High	Low	Moderate	Moderate	Low	Tension
Ipe	Moderate	High	Very High	Extreme	Extreme	Extreme	Tension
Bamboo	Moderate	Very High	Extreme	High	Very High	Very High	Tension
Pacific yew	Extreme	Very High	High	High	High	Moderate	Tension
Jatoba	Moderate	High	Very High	Very High	Very High	Very High	Unknown
Lancewood	Moderate	High	Very High	Very High	Very High	Very High	Unknown
Plum	Moderate	Low	Low	High	Moderate	High	Unknown
Muninga	Extreme	Extreme	Very High	Moderate	Moderate	Moderate	Unknown
Wenge	Moderate	Moderate	Very High	Moderate	Very High	Very High	Balanced
Holly	High	Moderate	Low	Moderate	Low	Low	Balanced
Poplar	Terrible	Low	High	Low	Low	High	Balanced
Hophornbeam	Moderate	Moderate	Low	High	Moderate	High	Balanced
Purpleheart	Low	Moderate	Very High	Very High	Very High	Extreme	Balanced
Koa	Moderate	Moderate	Moderate	Moderate	Moderate	High	Balanced
Ziricote	Extreme	High	Moderate	High	High	High	Balanced
Pecan	Moderate	Moderate	Low	High	Moderate	High	Balanced
Black Cherry	Moderate	Moderate	High	Low	Moderate	High	Compression
Red Alder	Terrible	Moderate	High	Low	Low	Moderate	Compression
Mulberry	Moderate	Moderate	Low	Moderate	Moderate	Moderate	Compression
Alligator Juniper	Extreme	Low	Low	Moderate	Low	Low	Compression
Eastern Redcedar	Very High	Moderate	Low	Low	Low	Low	Compression
Siamese rosewood	Extreme	Very High	Very High	Extreme	Extreme	Very High	Compression
Cascara Buckthorn	High	Low	Low	Moderate	Low	Low	Compression

[1] Breaking strain is the amount of deformation the wood can endure before breaking. A key metric of what makes a good bow wood. Woods with higher breaking strain should be able to handle more extreme designs (longer draw, shorter length, stiffer tips, more extreme recurves).

[2] A.k.a. Resilience-to-weight ratio. This ratio is a measure of the wood's efficiency in storing energy. Resilience is the amount of energy a material can store without taking permanent deformation. A higher ratio means the wood stores more energy per mass, and therefore should be able to make a lighter mass bow for a given draw weight.

[3] Strength-to-weight ratio (MOR/SG@12% moisture)

[4] A.k.a. Specific gravity. Woods with "Extreme" density may sink in water.

[5] A.k.a Modulus of rupture

[6] A measure of how much force it takes to bend the wood. Also known as elastic modulus or Young's modulus. The stiffer the wood, the higher draw weight a bow will be for given dimensions. Note that this number does not indicate how far the wood can be bent without breaking. It simply indicates how rigid the material is. Stiffer woods can sometimes be bent farther than less-stiff woods before breaking (see Breaking Strain).

[7] Based on ratio of modulus of rupture to crushing strength. Woods with a high ratio are tension strong. These will benefit from trapping and be suitable for higher-crowned designs such as sapling bows. Woods with a high ratio will however be at risk of crysaling and set in rectangular cross-section bows. Woods with a lower ratio will tend to be tension weak and benefit from backing, but can make very good bows when backed or used as belly laminations.