

Wood vs. Polyethylene

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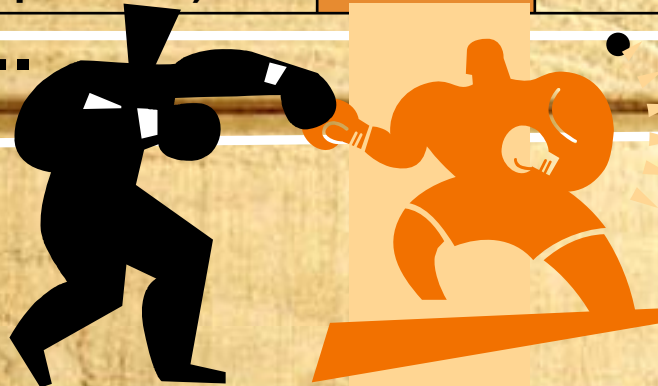
Fights	Wood	PE	Victory
Bending (MPa) Ultimate	120.5	20.7	Wood
Ductility in Bending (Strain)	0.015	0.15	PE
Hardness (Vickers)	7.96	4.85	Wood
Impact (J)	11.5	5.6	Wood
Fatigue (strain after 10cycles)	0.65	0.016	PE
Tension (MPa) Ultimate	100	20	Wood
Abrasion (mass loss at 7N, 18.8m travelled)	0.115	0.018	PE
Eco-Indicator (mpoints/lb)	3	150	Wood

• **Wood Wins in....**

Bending, Hardness, Impact, Tension, and Eco-Indicator

• **PE Wins in....**

Fatigue, and Abrasion





But the Winner Is...

Property	Importance	Wood	PE
Mechanical Testing	1	x	
Temperature Effects	3	---	---
Water Effects	5		x
Abrasion Resistance	4		x
Production Cost	2		x
Ecoproperties	2	x	
Aesthetics	4	x	
Retail Price	3		x
Health Standards	5		x
Other Preferences		-	-
Overall Rating		7	19

