

Physical Properties of Cypress

And Other Common Species

	Cypress	Western Red Cedar	Atlantic White Cedar	Eastern White Pine
Specific Gravity – 12% Moisture Content (MC)	.46	.32	.32	.35
Density (lbs/ft ³)	31.4	22.4	23	22–31
Static Bending				
Modulus of Rupture (lbf/in ²)	10,600	7,500	6,800	8,600
Modulus of Elasticity	1.44	1.11	.93	1.24
Work to Maximum Load (in-lbf/ft ²)	8.2	5.8	4.1	6.8
Impact Bending				
Height of drop causing complete failure (in)	24	17	13	18
Compression Parallel to Grain – 12% MC				
Maximum crushing strength (lbf/in ²)	6,360	4,560	4,700	4,800
Compression Perpendicular to Grain – 12% MC				
Fiber stress at proportional limit (lbf/in ²)	730	460	410	440
Tension Perpendicular to Grain – 12% MC				
Maximum tensile strength (lbf/in ²)	270	220	220	310
Shear Parallel to Grain – 12% MC				
Maximum shearing strength (lbf/in ²)	1,000	990	800	900
Side Hardness (lbs)				
(Load required to embed a 0.444 ball to half its diameter)	510	350	350	380
Flame Spread Rating	145–150	70	Not Available	85

Note: These are clear, defect-free properties and should not be used for design properties.

Source: USDA Forest Service Forest Products Laboratory, 2010, Wood Handbook, Wood as an Engineering Material



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