

Table 13–5. Dimensional change coefficients (C_R , radial; C_T , tangential) for shrinking or swelling within moisture content limits of 6% to 14%

Species	Dimensional change coefficient ^a		Species	Dimensional change coefficient ^a	
	C_R	C_T		C_R	C_T
Hardwoods					
Alder, red	0.00151	0.00256	Honeylocust	0.00144	0.00230
Apple	0.00205	0.00376	Locust, black	0.00158	0.00252
Ash, black	0.00172	0.00274	Madrone, Pacific	0.00194	0.00451
Ash, Oregon	0.00141	0.00285	Magnolia, cucumbertree	0.00180	0.00312
Ash, pumpkin	0.00126	0.00219	Magnolia, southern	0.00187	0.00230
Ash, white	0.00169	0.00274	Magnolia, sweetbay	0.00162	0.00293
Ash, green	0.00169	0.00274	Maple, bigleaf	0.00126	0.00248
Aspen, quaking	0.00119	0.00234	Maple, red	0.00137	0.00289
Basswood, American	0.00230	0.00330	Maple, silver	0.00102	0.00252
Beech, American	0.00190	0.00431	Maple, black	0.00165	0.00353
Birch, paper	0.00219	0.00304	Maple, sugar	0.00165	0.00353
Birch, river	0.00162	0.00327	Oak, black	0.00123	0.00230
Birch, yellow	0.00256	0.00338	Red Oak, commercial	0.00158	0.00369
Birch, sweet	0.00256	0.00338	Red oak, California	0.00123	0.00230
Buckeye, yellow	0.00123	0.00285	Red oak: water, laurel, willow	0.00151	0.00350
Butternut	0.00116	0.00223	White Oak, commercial	0.00180	0.00365
Catalpa, northern	0.00085	0.00169	White oak, live	0.00230	0.00338
Cherry, black	0.00126	0.00248	White oak, Oregon white	0.00144	0.00327
Chestnut, American	0.00116	0.00234	White oak, overcup	0.00183	0.00462
Cottonwood, black	0.00123	0.00304	Persimmon, common	0.00278	0.00403
Cottonwood, eastern	0.00133	0.00327	Sassafras	0.00137	0.00216
Elm, American	0.00144	0.00338	Sweetgum	0.00183	0.00365
Elm, rock	0.00165	0.00285	Sycamore, American	0.00172	0.00296
Elm, slippery	0.00169	0.00315	Tanoak	0.00169	0.00423
Elm, winged	0.00183	0.00419	Tupelo, black	0.00176	0.00308
Elm, cedar	0.00183	0.00419	Tupelo, water	0.00144	0.00267
Hackberry	0.00165	0.00315	Walnut, black	0.00190	0.00274
Hickory, pecan	0.00169	0.00315	Willow, black	0.00112	0.00308
Hickory, true	0.00259	0.00411	Willow, Pacific	0.00099	0.00319
Holly, American	0.00165	0.00353	Yellow-poplar	0.00158	0.00289
Softwoods					
Baldcypress	0.00130	0.00216	Pine, eastern white	0.00071	0.00212
Cedar, yellow-	0.00095	0.00208	Pine, jack	0.00126	0.00230
Cedar, Atlantic white-	0.00099	0.00187	Pine, loblolly	0.00165	0.00259
Cedar, Eastern Red	0.00106	0.00162	Pine, pond	0.00165	0.00259
Cedar, incense	0.00112	0.00180	Pine, lodgepole	0.00148	0.00234
Cedar, northern white- ^b	0.00101	0.00229	Pine, Jeffrey	0.00148	0.00234
Cedar, Port-Orford-	0.00158	0.00241	Pine, longleaf	0.00176	0.00263
Cedar, western red ^b	0.00111	0.00234	Pine, ponderosa	0.00133	0.00216
Douglas-fir, Coast-type	0.00165	0.00267	Pine, red	0.00130	0.00252
Douglas-fir, Interior north	0.00130	0.00241	Pine, shortleaf	0.00158	0.00271
Douglas-fir, Interior west	0.00165	0.00263	Pine, slash	0.00187	0.00267
Fir, balsam	0.00099	0.00241	Pine, sugar	0.00099	0.00194
Fir, California red	0.00155	0.00278	Pine, Virginia	0.00144	0.00252
Fir, noble	0.00148	0.00293	Pine, western white	0.00141	0.00259
Fir, Pacific silver	0.00151	0.00327	Redwood, old-growth ^b	0.00120	0.00205
Fir, subalpine	0.00088	0.00259	Redwood, second-growth ^b	0.00101	0.00229
Fir, grand	0.00112	0.00245	Spruce, black	0.00141	0.00237
Fir, white	0.00112	0.00245	Spruce, Engelmann	0.00130	0.00248