SUPPLEMENTARY MATERIAL

Table SI. Quantitative anatomical features of hardwood samples.

Anatomical feature	Purlin 1 MI (AV) MA ± SD	Purlin 2 MI (AV) MA ± SD	Rafter MI (AV) MA ± SD	Structural pillar MI (AV) MA ± SD	Window 2 (*) MI (AV) MA ± SD	External door MI (AV) MA ± SD	Wall MI (AV) MA ± SD
Basic density (g/cm^3)	0.5 (0.6) 0.8 ± 0.1	0.6 (0.7) 0.8 ± 0.1	0.4 (0.6) 0.8 ± 0.1	0.5 (0.7) 1.2 ± 0.3	0.3 (0.4) 0.5 ± 0.1	0.8 (0.8) 1 ± 0.1	0.3 (0.3) 0.4 ± 0.1
Vessel frequency (mm^2)	1 (3) 5 ± 0.9	1 (2) 3 ± 0.7	6 (10) 16 ± 1.9	5 (11) 16 ± 2.7	11 (24) 38 ± 7	8 (18) 28 ± 5.6	1 (3) 4 ± 0.9
Tangential diameter of vessel lumina (µm)	88.5 (156.9) 204.1 ± 26.2	113.6 (166.5) 208.3 ± 28.3	120.9 (142.3) 173.7 ± 13.8	74.6 (121.9) 169.6 ± 22.2	65.1 (102.9) 147.3 ± 21.8	49.3 (73) 96.7 ± 12.4	110.6 (118.4) 244.8 ± 36.5
Vessel element length (µm)	216.3 (408.1) 563.8 ± 92.1	234.2 (391.9) 645.4 ± 95.9	704.5 (832.7) 978.4 ± 85.4	140.1 (468.7) 714.5 ± 152.5	227.4 (274.1) 348.9 ± 28	312.1 (675.6) 946.5 ± 150.8	302.5 (593.8) 722 ± 110.5
Intervessel pits (µm)	4.5 (5.1) 5.8 ± 0.4	6.1 (8.1) 9.6 ± 0.9	7.7 (9.7) 11.2 ± 1.1	4.8 (5.6) 7 ± 0.6	10.3 (12.6) 15 ± 1.3	4.2 (6.7) 9.8 ± 1.3	5.4 (6.6) 7.4 ± 0.6
Vessel-ray pits (µm)	4.3 (5) 5.9 ± 0.5	5.7 (6.8) 7.8 ± 0.8	6.5 (8.2) 10 ± 1.1	4.6 (5.2) 6.3 ± 0.5	5.3 (6.5) 7.7 ± 0.8	5.9 (11.8) 23.4 ± 4.9	5.1 (6.3) 7.6 ± 0.7
Fibre length (µm)	809.5 (1131) 1378.6 ± 125.5	794. 2 (1182.6) 1550.2 ± 191.1	927.5 (1282.2) 1772.3 ± 230.8	700.5 (910.8) 1228.3 ± 154.2	683.7 (1009.5) 1472 ± 218.2	757.6 (1332.6) 2006.3 ± 304.9	886.2 (1230.9) 1495.9 ± 169.5
Fibre diameter (µm)	14.3 (19.3) 24.9 ± 2.8	12.2 (16.8) 22.2 ± 2.4	7.1 (15.4) 25.3 ± 5.1	15.4 (21.9) 27.7 ± 3.1	-	17.3 (21.1) 26.1 ± 2.1	18.5 (25.9) 33.3 ± 3.63
Fibre lumina (µm)	4.9 (7.7) 10.8 ± 1.6	3.8 (7.1) 12.7 ± 1.9	3.1 (6.7) 11.8 ± 2.9	2.5 (4.9) 8.5 ± 1.4	-	0.9 (2.3) 4.4 ± 0.8	11.7 (17.9) 22.3 ± 2.72
Fibre wall thickness (µm)	4.3 (5.9) 7.6 ± 0.9	3.8 (4.8) 6.7 ± 0.7	2 (4.4) 6.9 ± 1.4	6.5 (8.6) 11.1 ± 1.3	-	7.9 (9.5) 11.3 ± 0.9	2.7 (4.1) 6 ± 0.8
Axial parenchyma strand (µm)	119.6 (343.6) 595.2 ± 112.5	95.6 (366.5) 553.7 ± 125.9	193.1 (588.9) 987.9 ± 216.6	222.5 (480.4) 875.9 ± 143.5	201.9 (266.1) 365.5 ± 35.8	303.6 (579.7) 875.8 ± 144.8	286.2 (580.7) 774.6 ± 147.8
Axial parenchyma strand (number of cells)	1 (3) 4 ± 0.9	2 (3) 4 ± 0.9	2 (4) 7 ± 1.5	2 (3) 6 ± 1.4	2 (2) 3 ± 0.3	3 (5) 8 ± 1.6	2 (4) 7 ± 0.9
Ray frequency (mm)	4 (6) 8 ± 1	3 (5) 8 ± 1	7 (11) 15 ± 1.9	4 (8) 12 ± 2.4	4 (6) 8 ± 0.9	8 (10) 13 ± 1.6	3 (5) 7 ± 1.1
Ray length (µm)	149.1 (194.8) 303.5 ± 36.9	115.6 (222.8) 312.9 ± 50.9	77.8 (388.4) 751.8 ± 184	100 (242.6) 643.4 ± 118.4	139.4 (191.9) 355.2 ± 41.5	152.6 (318.7) 629.6 ± 116.5	155.2 (489.7) 778.2 ± 183.2
Ray width (µm)	22.4 (39.4) 56.9 ± 9.4	20.7 (34.9) 53.4 ± 7.4	9.5 (13.6) 21.6 ± 2.8	12.1 (15.4) 24.1 ± 2.9	20.7 (32.6) 47.4 ± 7.5	12.9 (24.1) 33.6 ± 5.1	17.2 (39.1) 60.3 ± 12.9
Ray width (number of cells)	2 (3) 4 ± 0.7	2 (3) 4 ± 0.7	1 (1) 1 ± 0	1 (1) 1 ± 0	2 (2) 3 ± 0.5	1 (2) 2 ± 0.46	1 (2) 3 ± 0.8

MI, minimum value; AV, average value; MA, maximum value; SD, standard deviation; (*) Window 2 structural support.

Table SII. Quantitative anatomical features of softwood samples.

Anatomical feature	Window 1 MI (AV) MA ± SD	Window 2 (+) MI (AV) MA ± SD	Internal door MI (AV) MA ± SD
Basic density (g/cm^3)	0.4 (0.6) 0.8 ± 0.1	0.6 (0.7) 0.9 ± 0.1	0.4 (0.6) 0.9 ± 0.1
Tracheid length (µm)	2439.4 (5229.6) 7283.9 ± 1380.7	867.3 (2862.9) 4403.6 ± 990.9	2811.1 (4133) 6241.7 ± 845.5
Diameter of axial intercellular canals (µm)	131.9 (166.6) 221.1 ± 28.5	138.8 (163.6) 184.6 ± 13.1	62.1 (144.4) 246.6 ± 56.3
Diameter of radial intercellular canals (µm)	53.5 (73.1) 87.9 ± 10.4	58.6 (68.9) 77.6 ± 6.8	48.3 (63.3) 76.7 ± 9.2
Ray frequency (mm)	1 (3) 5 ± 1.1	1 (4) 7 ± 1.4	2 (4) 5 ± 1
Ray height (µm)	48.7 (133.2) 194.8 ± 36.5	47.4 (143) 242.1 ± 55.3	81.7 (132.2) 220.7 ± 38.1
Fusiform ray height (µm)	322.4 (446.1) 564.5 ± 86.3	239.7 (366.4) 553.1 ± 97.4	264.4 (385.9) 568.2 ± 62.7
Ray width (µm)	11.8 (17.3) 22.4 ± 2.5	9.2 (15.3) 21.1 ± 3.2	13.8 (19.8) 27.6 ± 3.5
Number of pits per cross-field	1 (2) 3 ± 0.6	1 (2) 4 ± 0.9	2 (3) 6 ± 1.3

MI, minimum value; AV, average value; MA, maximum value; SD, standard deviation; (+) Window 2 jamb.