



Frame Cavity Assemblies

Framing and Cavity Percentages for Typical Wood-frame Assemblies

Adapted from:

User's Guide National Building Code of Canada 2011 p.37

Frame Spacing, mm o.c. (on centre)											
Wood-frame Assemblies		304		406		488		610		1220	
		% Area Framing	% Area Cavity	% Area Framing	% Area Cavity	% Area Framing	% Area Cavity	% Area Framing	% Area Cavity	% Area Framing	% Area Cavity
Floors	Lumber joists	n/a	n/a	13	87	11.5	88.5	10	90	n/a	n/a
	I-joists and truss	n/a	n/a	9	91	7.5	92.5	6	94	n/a	n/a
	Ceilings with typical trusses	n/a	n/a	14	86	12.5	87.5	11	89	n/a	n/a
	Ceilings with raised heel trusses	n/a	n/a	10	90	8.5	91.5	7	93	n/a	n/a
Roofs/ Ceilings	Roofs with lumber rafters and ceilings with lumber joists	n/a	n/a	13	87	11.5	88.5	10	90	n/a	n/a
	Roofs with I-joist rafters and ceilings with I-joists	n/a	n/a	9	91	7.5	92.5	6	94	n/a	n/a
	Roofs with structural insulated panels (SIPs)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	9	91
	Typical wood-frame	24.5	75.5	23	77	21.5	78.5	20	80	n/a	n/a
Walls	Advanced wood-frame with double top plate	n/a	n/a	19	81	17.5	82.5	16	84	n/a	n/a
	SIP's (Structural Insulated Panels)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	14	86
	Basement wood-frame inside concrete foundation wall	n/a	n/a	16	84	14.5	85.5	12	87	n/a	n/a