

7' closed cell in rafters													EPD unit	EPD Source
	Sq. ft	Sq. meters	Cu. meters	Kg	In	R/in	Total R	EPD	Sub kgCO2e	CO2 Storage	kgCO2e			
Slopes CC HFO	906.24	84.19			7	6.6	46.2	4.16			2846	kg/m2@R-5:	EPD-085 ASTM	
Walls CC HFO	168.00	15.61			3	6.6	19.8	4.16			226	kg/m2@R-5:	EPD-085 ASTM	
Intumescent coating	1074.24	99.80						2.363			118	kg/kg	S-P-01434	
3 new vinyl windows	14.00	1.30						63.68			83	kg/m2	EPD-QKE-20150313-IBG1-EN-IBU Germany	
Total												3273		
Build down interior combo													EPD unit	EPD Source
Slopes 2x6 build down framing	906.24	84.19	1.45					72.64			105	kg/m3	13CA24184.102.1 North American softwood lumber average	
Slopes CC HFO	906.24	84.19			3	6.6	19.8	4.16			1220	kg/m2@R-5:	EPD-085 ASTM	
Slopes intumescent coating	906.24	84.19						2.363			99	kg/kg	S-P-01434	
Slopes cellulose dense pack	906.24	84.19	17.11	#####	8	3.7	29.6	0.198	203.24	1732.89	-1530	kg/kg	VTT-CR-01200-14 Termex Europe	
Slopes Tyvek	906.24	84.19						1.01			85	kg/m2	4787059050.102.1 Dupont Tyvek	
Strapping over Tyvek	906.24	84.19	0.70					72.64			51	kg/m3	13CA24184.102.1 North American softwood lumber average	
Walls 2x3 pad out	168.00	15.61	0.16					72.64			11	kg/m3	13CA24184.102.1 North American softwood lumber average	
Walls cellulose dense pack	168.00	15.61	2.38	142.72	6	3.7	22.2	0.198	28.26	240.93	-213	kg/kg	VTT-CR-01200-14 Termex Europe	
Walls Tyvek	168.00	15.61						1.01			16	kg/m2	4787059050.102.1 Dupont Tyvek	
Strapping over Tyvek	168.00	15.61	0.13					72.64			9	kg/m3	13CA24184.102.1 North American softwood lumber average	
Canned foam HFC estimate	168.00	15.61			0.25	6.6	1.65	7.58			34	kg/m2@R-5:	EPD-085 ASTM	
3 new vinyl windows	14.00	1.30						63.68			83	kg/m2	EPD-QKE-20150313-IBG1-EN-IBU Germany	
Total												-28		
Cellulose on floor													EPD unit	EPD Source
Baffle vent estimate	200.00			11.20				2.54			28	kg/kg	ICE database General Polyethylene	
OSB damming/misc estimate	400.00	3.72	0.06					248.30			15	kg/m3	13CA24184.101.1 North American OSB	
Canned foam HFC estimate	768.00	71.35			0.25	6.6	1.65	7.58			157	kg/m2@R-5:	EPD-085 ASTM	
Attic floor loose blown cellulose 14	768.00	71.35	25.37	608.93	14	3.7	51.80	0.198	120.57	1027.99	-907	kg/kg	VTT-CR-01200-14 Termex Europe	
Hatch XPS estimate	40.00	3.72			2	5	10	25.87			169	kg/m2@R-5:	478872182.101.1 UL (Owens Corning)	
Total												-538		
Cellulose in rafters 4" piso on roof													EPD unit	EPD Source
Exterior 2x4 framing	906.24	84.19	0.92					72.64			67	kg/m3	13CA24184.102.1 North American softwood lumber average	
Exterior 4" piso	906.24	84.19			4	6	24	2.41			857	kg/m2@R-5:	4787408569.104.1 Carlisle	
Exterior OSB	906.24	84.19	1.34					248.30			332	kg/m3	13CA24184.101.1 North American OSB	
Exterior 1x8 trim	132.16	12.28	0.13					72.64			10	kg/m3	13CA24184.102.1 North American softwood lumber average	
Slopes cellulose dense pack	906.24	84.19	17.11	#####	8	3.7	29.6	0.198	203.24	1732.89	-1530	kg/kg	VTT-CR-01200-14 Termex Europe	
Slopes Tyvek	906.24	84.19						1.01			85	kg/m2	4787059050.102.1 Dupont Tyvek	
Strapping over Tyvek	906.24	84.19	0.70					72.64			51	kg/m3	13CA24184.102.1 North American softwood lumber average	
Walls 2x3 pad out	168.00	15.61	0.16					72.64			11	kg/m3	13CA24184.102.1 North American softwood lumber average	
Walls cellulose dense pack	168.00	15.61	2.38	142.72	6	3.7	22.2	0.198	28.26	240.93	-213	kg/kg	VTT-CR-01200-14 Termex Europe	
Walls Tyvek	168.00	15.61						1.01			16	kg/m2	4787059050.102.1 Dupont Tyvek	
Strapping over Tyvek	168.00	15.61	0.13					72.64			9	kg/m3	13CA24184.102.1 North American softwood lumber average	
Canned foam HFC estimate	168.00	15.61			0.25	6.6	1.65	7.58			34	kg/m2@R-5:	EPD-085 ASTM	
3 new vinyl windows	14.00	1.30						63.68			83	kg/m2	EPD-QKE-20150313-IBG1-EN-IBU Germany	
Total												-187		
Cellulose in rafters 7" Gutex on roof													EPD unit	EPD Source
Exterior 2x4 framing	906.24	84.19	0.92					72.64			67	kg/m3	13CA24184.102.1 North American softwood lumber average	
Exterior 7" Gutex	906.24	84.19	14.97	#####				295.05	4416.72	6418.93	-2002	kg/m3	4787408569.104.1 Carlisle	
Exterior OSB	906.24	84.19	1.34					248.30			332	kg/m3	13CA24184.101.1 North American OSB	
Exterior 1x10 trim	132.16	12.28	0.15					72.64			11	kg/m3	13CA24184.102.1 North American softwood lumber average	
Slopes cellulose dense pack	906.24	84.19	17.11	#####	8	3.7	29.6	0.198	203.24	1732.89	-1530	kg/kg	VTT-CR-01200-14 Termex Europe	
Slopes Tyvek	906.24	84.19						1.01			85	kg/m2	4787059050.102.1 Dupont Tyvek	
Strapping over Tyvek	906.24	84.19	0.70					72.64			51	kg/m3	13CA24184.102.1 North American softwood lumber average	
Walls 2x3 pad out	168.00	15.61	0.16					72.64			11	kg/m3	13CA24184.102.1 North American softwood lumber average	
Walls cellulose dense pack	168.00	15.61	2.38	142.72	6	3.7	22.2	0.198	28.26	240.93	-213	kg/kg	VTT-CR-01200-14 Termex Europe	
Walls Tyvek	168.00	15.61						1.01			16	kg/m2	4787059050.102.1 Dupont Tyvek	
Strapping over Tyvek	168.00	15.61	0.13					72.64			9	kg/m3	13CA24184.102.1 North American softwood lumber average	
Canned foam HFC estimate	168.00	15.61			0.25	6.6	1.65	7.58			34	kg/m2@R-5:	EPD-085 ASTM	
3 new vinyl windows	14.00	1.30						63.68			83	kg/m2	EPD-QKE-20150313-IBG1-EN-IBU Germany	
Total												-3045		
12' x 8' Head House with cellulose around													EPD unit	EPD Source
Baffle vent estimate	300.00			16.80				2.54			43	kg/kg	ICE database General Polyethylene	
Canned foam HFC estimate	768.00	71.35			0.25	6.6	1.65	7.58			157	kg/m2@R-5:	EPD-085 ASTM	
Attic floor loose blown cellulose 14	672.00	62.43	22.20	532.81	14	3.7	51.80	0.198	105.50	899.49	-794	kg/kg	VTT-CR-01200-14 Termex Europe	
HH OSB floor sheathing	96.00	8.92	0.14					248.30			35	kg/m3	13CA24184.101.1 North American OSB	
HH walls 2x6 framing	240.00	22.30	0.38					72.64			28	kg/m3	13CA24184.102.1 North American softwood lumber average	
HH ceiling 2x4 framing	96.00	8.92	0.10					72.64			7	kg/m3	13CA24184.102.1 North American softwood lumber average	
HH walls Tyvek both sides	672.00	62.43						1.01			63	kg/m2	4787059050.102.1 Dupont Tyvek	
HH wall fiberglass batts	204.00	18.95						0.832			56	kg/m2@R-5:	Average 4788548937.101.1 Owens Corning Pink	
Total												-405		