CLT Profi Ltd
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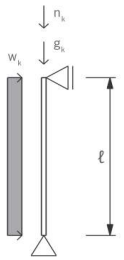
CLT panels produced since 2015

External walls

(w=1.0 kN/m^2)



Minimum panel thickness of various fire resistance classes.

Dead load	Imposed load	Height											
g_k*	n_k	2.5m				3.0m				4.0m			
kN/m	kN/m	R0	R30	R60	R90	R0	R30	R60	R90	R0	R30	R60	R90
10,0	10,0	60 C3	80 C3	80 C3	120 C3	60 C3	80 C3	100 C5	120 C3	60 C3	80 C3	100 C5	120 C3
	20,0			100 C5						80 C3	90 C3	120 C5	140 C5
	30,0										100 C3		
	40,0					80 C3			140 C5				
	50,0												
	60,0	80 C3					90 C3			90 C3	100 C5		
20,0	10,0	60 C3	80 C3	80 C3	120 C3	60 C3	80 C3	100 C5	120 C3	80 C3	80 C3	100 C5	140 C5
	20,0			100 C5							90 C3	120 C5	
	30,0								140 C5		100 C3		
	40,0					80 C3							
	50,0	80 C3					90 C3			90 C3	100 C5		
	60,0				140C5			120 C5					
30,0	10,0	60 C3	80 C3	100 C5	120 C3	60 C3	80 C3	100 C5	120 C3	80 C3	90 C3	120 C5	140 C5
	20,0										100 C3		
	30,0					80 C3			140 C5				
	40,0												
	50,0	80 C3			140 C5		90 C3	120 C5		90 C3	100 C5		
	60,0												
40,0	10,0	60 C3	80 C3	100 C5	120 C3	60 C3	80 C3	100 C5	120 C3	80 C3	90 C3	120 C5	140 C5
	20,0										100 C3		
	30,0					80 C3			140 C5				
	40,0												
	50,0	80 C3			140 C5		90 C3	120 C5		90 C3	100 C5		
	60,0		90 C3				100 C3			100 C3	120 C3		
50,0	10,0	60 C3	80 C3	100 C5	120 C3	80 C3	80 C3	100 C5	140 C5	80 C3	100 C3	120 C5	140 C5
	20,0						90 C3			90 C3			
	30,0				140 C5			120 C5			100 C5		
	40,0	80 C3											
	50,0		90 C3				100 C3			100 C3	120 C3		
	60,0			120 C5									
60,0	10,0	60 C3	80 C3	100 C5	120 C3	80 C3	90 C3	100 C5	140 C5	90 C3	100 C3	120 C5	140 C5
	20,0										100 C5		
	30,0				140 C5			120 C5					
	40,0	80 C3											
	50,0		90 C3				100 C3			100 C3	120 C3		
	60,0			120 C5									160 C5

Service class 1, Imposed load category A (ψ_0 = 0.7; ψ_1 = 0.5; ψ_2 = 0.3), k_{mod} = 0.8

*In the table the CLT self weight is already taken into account.

Loading - bearing capacity:

a) verification as a column (compression in accordance with equivalent member method);

b) Shearing stresses.

The table is only for perliminary estimate purpose and is not a substitute for a structural analysis.

Fire resistance

$v_{1,i}$ = 0.63 mm/min

$v_{2,i}$ = 0.86 mm/min

R0
R30
R60
R90