

# Sylva Floors span table

2023-08-24  
V1.3

This document is intended for quick comparisons of the different Sylva Floor solutions.

The design tables below are intended as an aid for the preliminary design but are not a substitute for a full structural design.

## Boundary conditions

Initial deflection		W, inst < L/300		
Net final deflection		Same as final deflection		
Final deflection		W, fin = W, net,fin = L/250		
Single span system				
Service class 1				
Load	Load category	A (resid)	B (office)	C (public)
	$\psi_2$	0,3	0,3	0,6
Vibration	Width system	A (resid)	B (office)	C (public)
		5,00 m	5,00 m	8,00 m
	Screed thickness*	6,0 cm		
	E screed	26000 MPa		
	Damping	4%		
	Floor class	A (resid)	B (office)	C (public)
		I	II	II

\* Load cases with deadload 1,0kN/m2 to be calculated without screed

## Load cases:

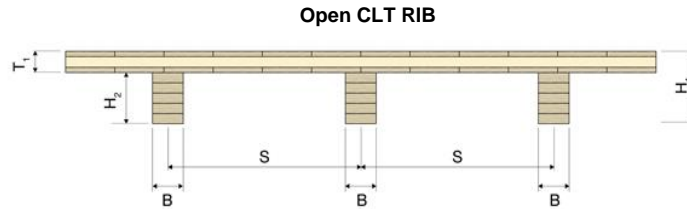
	A (resid)	B (office)	C (public)
DL surcharge*	2,00 kN/m <sup>2</sup>	1,00 kN/m <sup>2</sup> *	1,00 kN/m <sup>2</sup> *
	3,00 kN/m <sup>2</sup>	2,00 kN/m <sup>2</sup>	2,00 kN/m <sup>2</sup>
Live Load	1,50 kN/m <sup>2</sup>	2,50 kN/m <sup>2</sup>	3,00 kN/m <sup>2</sup>
	2,00 kN/m <sup>2</sup>	3,50 kN/m <sup>2</sup>	4,00 kN/m <sup>2</sup>

\* Load cases with deadload 1,0kN/m2 to be calculated without screed



## Sylva CLT RIB Floors

Panel Width 2.45 m  
 No. Ribs 3  
 Rib Spacing 817 mm  
 Rib width R30 160mm  
 Rib width R60 160mm  
 Rib width R90 200mm



**Variant name structure**



## Open

	Category	Char. Dead load DL gk [kN/m]	Char. Live load LL qk [kN/m]	Span									
				5,5	6	6,5	7	7,5	8	8,5	9	9,5	10
<b>R30</b>	A	2	1,5	H280-80L3s	H320-80L3s	H360-80L3s	H400-80L3s	H440-80L3s	H480-80L3s	H520-80L3s	H560-80L3s	H600-80L3s	H640-80L3s
			2	H280-80L3s	H320-80L3s	H360-80L3s	H400-80L3s	H440-80L3s	H480-80L3s	H520-80L3s	H560-80L3s	H600-80L3s	H640-80L3s
		3	1,5	H320-80L3s	H360-80L3s	H400-80L3s	H440-80L3s	H480-80L3s	H520-80L3s	H560-80L3s	H560-80L3s	H600-80L3s	H640-80L3s
			2	H320-80L3s	H360-80L3s	H400-80L3s	H440-80L3s	H480-80L3s	H520-80L3s	H560-80L3s	H560-80L3s	H600-80L3s	H640-80L3s
	B	1 *	2,5	H260-80L3s	H280-80L3s	H300-80L3s	H320-80L3s	H360-80L3s	H360-80L3s	H400-80L3s	H400-80L3s	H440-80L3s	H480-80L3s
			3,5	H280-80L3s	H280-80L3s	H320-80L3s	H320-80L3s	H360-80L3s	H360-80L3s	H400-80L3s	H400-80L3s	H440-80L3s	H480-80L3s
		2	2,5	H280-80L3s	H280-80L3s	H320-80L3s	H320-80L3s	H360-80L3s	H400-80L3s	H400-80L3s	H440-80L3s	H440-80L3s	H480-80L3s
			3,5	H280-80L3s	H280-80L3s	H320-80L3s	H320-80L3s	H360-80L3s	H400-80L3s	H400-80L3s	H440-80L3s	H440-80L3s	H480-80L3s
	C	1 *	3	H280-80L3s	H280-80L3s	H320-80L3s	H320-80L3s	H360-80L3s	H360-80L3s	H400-80L3s	H400-80L3s	H440-80L3s	H480-80L3s
			4	H280-80L3s	H280-80L3s	H320-80L3s	H320-80L3s	H360-80L3s	H360-80L3s	H400-80L3s	H400-80L3s	H440-80L3s	H480-80L3s
		2	3	H280-80L3s	H300-80L3s	H320-80L3s	H320-80L3s	H360-80L3s	H400-80L3s	H400-80L3s	H440-80L3s	H480-80L3s	H480-80L3s
			4	H280-80L3s	H320-80L3s	H320-80L3s	H320-80L3s	H360-80L3s	H400-80L3s	H440-80L3s	H440-80L3s	H480-80L3s	H520-80L3s

\* No screed

# Sylva Floors span table

2023-08-24  
V1.3

R60	Category	Char. Dead load DL gk [kN/m]	Char. Live load LL qk [kN/m]	Span									
				5,5	6	6,5	7	7,5	8	8,5	9	9,5	10
				A	2	1,5	H300-100L3s	H340-100L3s	H380-100L3s	H420-100L3s	H460-100L3s	H460-100L3s	H500-100L3s
		2	H300-100L3s	H340-100L3s	H380-100L3s	H420-100L3s	H460-100L3s	H460-100L3s	H500-100L3s	H540-100L3s	H580-100L3s	H620-100L3s	
	3	1,5	H340-100L3s	H380-100L3s	H380-100L3s	H420-100L3s	H460-100L3s	H500-100L3s	H540-100L3s	H580-100L3s	H580-100L3s	H620-100L3s	
		2	H340-100L3s	H380-100L3s	H380-100L3s	H420-100L3s	H460-100L3s	H500-100L3s	H540-100L3s	H580-100L3s	H580-100L3s	H620-100L3s	
	B	1 *	2,5	H260-100L3s	H300-100L3s	H300-100L3s	H340-100L3s	H340-100L3s	H380-100L3s	H380-100L3s	H380-100L3s	H420-100L3s	H460-100L3s
			3,5	H260-100L3s	H300-100L3s	H300-100L3s	H340-100L3s	H340-100L3s	H380-100L3s	H380-100L3s	H380-100L3s	H420-100L3s	H460-100L3s
		2	2,5	H260-100L3s	H300-100L3s	H300-100L3s	H340-100L3s	H380-100L3s	H380-100L3s	H420-100L3s	H420-100L3s	H460-100L3s	H460-100L3s
			3,5	H260-100L3s	H300-100L3s	H300-100L3s	H340-100L3s	H380-100L3s	H380-100L3s	H420-100L3s	H420-100L3s	H460-100L3s	H460-100L3s
	C	1 *	3	H260-100L3s	H300-100L3s	H300-100L3s	H340-100L3s	H340-100L3s	H380-100L3s	H380-100L3s	H420-100L3s	H420-100L3s	H460-100L3s
			4	H260-100L3s	H300-100L3s	H300-100L3s	H340-100L3s	H340-100L3s	H380-100L3s	H380-100L3s	H420-100L3s	H420-100L3s	H460-100L3s
		2	3	H260-100L3s	H300-100L3s	H300-100L3s	H340-100L3s	H340-100L3s	H380-100L3s	H420-100L3s	H420-100L3s	H460-100L3s	H460-100L3s
			4	H260-100L3s	H300-100L3s	H340-100L3s	H340-100L3s	H380-100L3s	H380-100L3s	H420-100L3s	H460-100L3s	H460-100L3s	H500-100L3s

\* No screed

R90 **	Category	Char. Dead load DL gk [kN/m]	Char. Live load LL qk [kN/m]	Span									
				5,5	6	6,5	7	7,5	8	8,5	9	9,5	10
				A	2	1,5	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H440-120L3s	H480-120L3s	H480-120L3s
		2	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H440-120L3s	H480-120L3s	H480-120L3s	H520-120L3s	H560-120L3s	H560-120L3s	
	3	1,5	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H440-120L3s	H480-120L3s	H480-120L3s	H520-120L3s	H560-120L3s		
		2	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H440-120L3s	H480-120L3s	H480-120L3s	H520-120L3s	H560-120L3s		
	B	1 *	2,5	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H440-120L3s	H440-120L3s	
			3,5	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H440-120L3s	H440-120L3s	
		2	2,5	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H440-120L3s	H440-120L3s	
			3,5	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H440-120L3s	H440-120L3s	
	C	1 *	3	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H440-120L3s	H440-120L3s	
			4	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H440-120L3s	H440-120L3s	
		2	3	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H440-120L3s		
			4	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s	H400-120L3s			

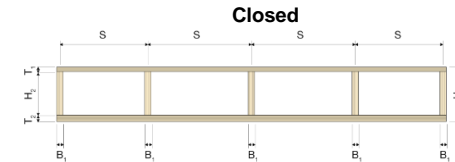
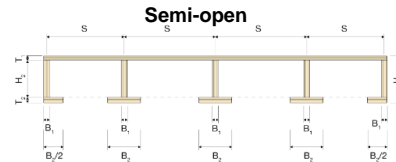
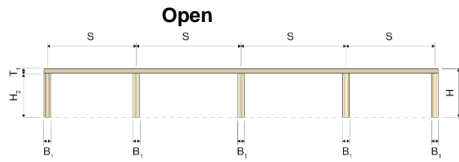
\* No screed

\*\* Based on fire tests that can be seen in ETA-20/0893, Annex 4

## Sylva LVL RIB Floors

		Grade	Variant name structure		
Panel Width	2.4 m		Open	Semi-open	Closed
Top panel thickness*	36 / 24 mm	LVL X	H287-X36	H287-X36-S48F	H287-X36-X48
No. Ribs	5		Total height	Total height	Total height
Rib Spacing	600 mm		Top panel grade & thickness (calibrated)	Bottom flange grade & thickness (calibrated)	Bottom panel grade & thickness (calibrated)
Rib width	51mm	LVL S		Top panel grade & thickness (calibrated)	Top panel grade & thickness (calibrated)
Bottom panel/flange thickness*	48 mm	LVL X/S			
Flange width	300 mm				

\* Calibrated thickness



### Open

R0	Category	Char. Dead load DL <sub>gk</sub> [kN/m]	Char. Live load LL <sub>qk</sub> [kN/m]	Span									
				5,5	6	6,5	7	7,5	8	8,5	9	9,5	10
				A	2	1,5	H336-X36	H396-X36	H396-X36	H436-X36	H486-X36	H486-X36	H536-X36
A	3	2	H336-X36	H396-X36	H396-X36	H436-X36	H486-X36	H486-X36	H536-X36	H636-X36	H636-X36	H636-X36	
		1,5	H336-X36	H396-X36	H396-X36	H436-X36	H486-X36	H486-X36	H536-X36	H636-X36	H636-X36	H636-X36	
B	1*	2	H336-X36	H396-X36	H396-X36	H436-X36	H486-X36	H486-X36	H536-X36	H636-X36			
		3,5	H436-X36	H486-X36	H486-X36	H536-X36	H636-X36						
B	2	2,5	H236-X36	H276-X36	H276-X36	H336-X36	H336-X36	H396-X36	H396-X36	H396-X36	H436-X36	H486-X36	
		3,5	H236-X36	H276-X36	H276-X36	H336-X36	H336-X36	H396-X36	H396-X36	H396-X36	H436-X36	H486-X36	
C	1*	3	H436-X36	H486-X36	H486-X36	H536-X36	H636-X36						
		4	H436-X36	H486-X36	H486-X36	H536-X36	H636-X36						
C	2	3	H236-X36	H276-X36	H276-X36	H336-X36	H336-X36	H396-X36	H396-X36	H396-X36	H436-X36	H486-X36	
		4	H236-X36	H276-X36	H276-X36	H336-X36	H336-X36	H396-X36	H396-X36	H396-X36	H436-X36	H486-X36	

\* No screed

# Sylva Floors span table

## Semi-open

R0	Category	Char. Dead load DL gk [kN/m]	Char. Live load LL qk [kN/m]	Span									
				5,5	6	6,5	7	7,5	8	8,5	9	9,5	10
				A	2	1,5	H284-X36-S48F	H284-X36-S48F	H324-X36-S48F	H324-X36-S48F	H384-X36-S48F	H384-X36-S48F	H444-X36-S48F
A	2	2	H284-X36-S48F	H284-X36-S48F	H324-X36-S48F	H324-X36-S48F	H384-X36-S48F	H384-X36-S48F	H444-X36-S48F	H444-X36-S48F	H484-X36-S48F	H484-X36-S48F	
		3	H284-X36-S48F	H284-X36-S48F	H324-X36-S48F	H324-X36-S48F	H384-X36-S48F	H384-X36-S48F	H444-X36-S48F	H444-X36-S48F	H484-X36-S48F	H484-X36-S48F	
A	3	2	H284-X36-S48F	H284-X36-S48F	H324-X36-S48F	H324-X36-S48F	H384-X36-S48F	H384-X36-S48F	H444-X36-S48F	H444-X36-S48F	H484-X36-S48F	H484-X36-S48F	
		3	H284-X36-S48F	H284-X36-S48F	H324-X36-S48F	H324-X36-S48F	H384-X36-S48F	H384-X36-S48F	H444-X36-S48F	H444-X36-S48F	H484-X36-S48F	H484-X36-S48F	
B	1*	2,5	H324-X36-S48F	H384-X36-S48F	H384-X36-S48F	H444-X36-S48F	H444-X36-S48F	H484-X36-S48F	H484-X36-S48F	H534-X36-S48F	H584-X36-S48F	H584-X36-S48F	
		3,5	H324-X36-S48F	H384-X36-S48F	H384-X36-S48F	H444-X36-S48F	H444-X36-S48F	H484-X36-S48F	H484-X36-S48F	H534-X36-S48F	H584-X36-S48F	H584-X36-S48F	
B	2	2,5	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H324-X36-S48F	H324-X36-S48F	H384-X36-S48F	
		3,5	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H324-X36-S48F	H324-X36-S48F	H384-X36-S48F	
C	1*	3	H324-X36-S48F	H384-X36-S48F	H384-X36-S48F	H444-X36-S48F	H444-X36-S48F	H484-X36-S48F	H484-X36-S48F	H534-X36-S48F	H584-X36-S48F	H584-X36-S48F	
		4	H324-X36-S48F	H384-X36-S48F	H384-X36-S48F	H444-X36-S48F	H444-X36-S48F	H484-X36-S48F	H484-X36-S48F	H534-X36-S48F	H584-X36-S48F	H584-X36-S48F	
C	2	3	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H324-X36-S48F	H324-X36-S48F	H384-X36-S48F	
		4	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H284-X36-S48F	H324-X36-S48F	H324-X36-S48F	H384-X36-S48F	

\* No screed

## Closed

R0	Category	Char. Dead load DL gk [kN/m]	Char. Live load LL qk [kN/m]	Span									
				5,5	6	6,5	7	7,5	8	8,5	9	9,5	10
				A	2	1,5	H284-X36-X48	H284-X36-X48	H284-X36-X48	H324-X36-X48	H384-X36-X48	H384-X36-X48	H444-X36-X48
A	2	2	H284-X36-X48	H324-X36-X48	H324-X36-X48	H384-X36-X48	H384-X36-X48	H444-X36-X48	H444-X36-X48	H444-X36-X48	H444-X36-X48	H484-X36-X48	
		3	1,5	H324-X36-X48	H324-X36-X48	H384-X36-X48	H384-X36-X48	H444-X36-X48	H444-X36-X48	H484-X36-X48	H484-X36-X48	H534-X36-X48	
A	3	2	H324-X36-X48	H384-X36-X48	H384-X36-X48	H444-X36-X48	H444-X36-X48	H484-X36-X48	H484-X36-X48	H484-X36-X48	H484-X36-X48	H534-X36-X48	
		3	H324-X36-X48	H384-X36-X48	H384-X36-X48	H444-X36-X48	H444-X36-X48	H484-X36-X48	H484-X36-X48	H484-X36-X48	H484-X36-X48	H534-X36-X48	
B	1*	2,5	H284-X36-X48	H284-X36-X48	H324-X36-X48	H324-X36-X48	H384-X36-X48	H384-X36-X48	H384-X36-X48	H444-X36-X48	H444-X36-X48	H484-X36-X48	
		3,5	H284-X36-X48	H384-X36-X48	H384-X36-X48	H384-X36-X48	H444-X36-X48	H444-X36-X48	H444-X36-X48	H484-X36-X48	H484-X36-X48	H534-X36-X48	
B	2	2,5	H284-X36-X48	H284-X36-X48	H284-X36-X48	H284-X36-X48	H284-X36-X48	H324-X36-X48	H324-X36-X48	H324-X36-X48	H384-X36-X48	H384-X36-X48	
		3,5	H284-X36-X48	H284-X36-X48	H284-X36-X48	H284-X36-X48	H324-X36-X48	H324-X36-X48	H324-X36-X48	H324-X36-X48	H384-X36-X48	H384-X36-X48	
C	1*	3	H284-X36-X48	H324-X36-X48	H324-X36-X48	H384-X36-X48	H384-X36-X48	H444-X36-X48	H444-X36-X48	H444-X36-X48	H484-X36-X48	H484-X36-X48	
		4	H324-X36-X48	H324-X36-X48	H384-X36-X48	H384-X36-X48	H444-X36-X48	H444-X36-X48	H444-X36-X48	H484-X36-X48	H484-X36-X48	H534-X36-X48	
C	2	3	H324-X36-X48	H324-X36-X48	H384-X36-X48	H384-X36-X48	H384-X36-X48	H444-X36-X48	H444-X36-X48	H484-X36-X48	H484-X36-X48	H534-X36-X48	
		4	H384-X36-X48	H384-X36-X48	H444-X36-X48	H444-X36-X48	H444-X36-X48	H484-X36-X48	H534-X36-X48	H534-X36-X48	H584-X36-X48	H584-X36-X48	

\* No screed

# Sylva Floors span table

2023-08-24  
V1.3

## Sylva CLT Floors

R	30	60	90	Category	Char. Dead load DL gk [kN/m]	Char. Live load LL qk [kN/m]	Span			
							3,5	4	4,5	5
							A	2	1,5	120 L3s
A	3	1,5	120 L3s	140 L5s	160 L5s	180 L5s				
		2	140 L5s	160 L5s	160 L5s - 2	200 L5s				
B	1 *	2,5	120 L3s	120 L3s	140 L5s	140 L5s				
		3,5	120 L3s	120 L3s	140 L5s	160 L5s				
	2	2,5	120 L3s	120 L3s	160 L5s	160 L5s				
		3,5	120 L3s	160 L5s	160 L5s	160 L5s				
C	1 *	3	120 L3s	120 L3s	160 L5s	160 L5s				
		4	120 L3s	160 L5s	160 L5s	160 L5s				
	2	3	120 L3s	160 L5s	160 L5s	160 L5s - 2				
		4	160 L5s	160 L5s	160 L5s	180 L5s				

\*No screed

R	30	60	90	Category	Char. Dead load DL gk [kN/m]	Char. Live load LL qk [kN/m]	Span									
							5,5	6	6,5	7	7,5	8	8,5	9	9,5	10
							A	2	1,5	220 L7s - 2	240 L7s	260 L7s - 2	280 L7s - 2	280 L7s - 2	300 L8s - 2	320 L8s - 2
A	3	1,5	220 L7s - 2	240 L7s	260 L7s - 2	280 L7s - 2	280 L7s - 2	300 L8s - 2	320 L8s - 2	320 L8s - 2						
		2	240 L7s	240 L7s	260 L7s - 2	280 L7s - 2	280 L7s - 2	300 L8s - 2	320 L8s - 2	320 L8s - 2						
B	1 *	2,5	160 L5s - 2	180 L5s	220 L7s - 2	220 L7s - 2	240 L7s - 2	260 L7s - 2	280 L7s - 2	300 L8s - 2						
		3,5	160 L5s - 2	200 L5s	220 L7s - 2	220 L7s - 2	240 L7s - 2	260 L7s - 2	280 L7s - 2	300 L8s - 2						
	2	2,5	180 L5s	200 L5s	220 L7s - 2	220 L7s - 2	240 L7s - 2	240 L7s - 2	260 L7s - 2	280 L7s - 2	300 L8s - 2					
		3,5	180 L5s	200 L5s	220 L7s - 2	240 L7s - 2	240 L7s - 2	260 L7s - 2	280 L7s - 2	300 L8s - 2	320 L8s - 2					
C	1 *	3	180 L5s	220 L7s - 2	220 L7s - 2	220 L7s - 2	240 L7s - 2	260 L7s - 2	260 L7s - 2	280 L7s - 2						
		4	180 L5s	220 L7s - 2	220 L7s - 2	240 L7s - 2	240 L7s - 2	260 L7s - 2	280 L7s - 2	300 L8s - 2						
	2	3	200 L5s	220 L7s - 2	220 L7s - 2	240 L7s - 2	260 L7s - 2	280 L7s - 2	300 L8s - 2	300 L8s - 2						
		4	200 L5s	220 L7s - 2	240 L7s - 2	240 L7s - 2	260 L7s - 2	280 L7s - 2	300 L8s - 2	320 L8s - 2						