

Dimensioning template

Enquiry form for preliminary design of wood-concrete composite (WCC)

Construction project	
Item no.	
Completed by	
Date	

Basis for calculation:

TS 19103:2021, ÖNORM B 1995-1-1, ÖNORM B 1992-1-1

Calculation method: γ - method

General			
Type: <input type="checkbox"/> WCC-flat slab <input type="checkbox"/> WCC-ribbed slab <input type="checkbox"/> WCC-dowel-beam ceiling	Usage class: <input type="checkbox"/> 1 <input type="checkbox"/> 2 for virtually constant climatic conditions: - expected equilibrium moisture content m_{use} corresponds to the moisture content at installation - maximum fluctuation in equilibrium moisture content $\Delta m_c = 6\%$ - maximum fluctuations in air temperature $\Delta T = 20\text{ K}$		
Span (single-span beam):	m	Ceiling width:	m
		Desired WCC- construction height:	mm

Concrete construction	
Take the cracked depth of the concrete into account in the stiffness calculation	<input type="checkbox"/> Yes <input type="checkbox"/> No

Loads			
Structural load (including partition wall surcharge):	$g_{1,k}$	kN/m ²	
Live load:	q_k	kN/m ²	Live load category: <input type="checkbox"/> A <input type="checkbox"/> C

Cross-section – concrete			
Height:	mm	Material <input type="checkbox"/> C25/30 <input type="checkbox"/> C30/37 <input type="checkbox"/> C35/45 <input type="checkbox"/> C40/50	Shrinkage according to EN 1992-1-1 – Annex B
Width:	mm		Creep coefficient according to EN 1992-1-1 – Annex B
		Type of cement <input type="checkbox"/> S <input type="checkbox"/> N <input type="checkbox"/> R	Reinforcement * relevant for ribbed slabs <input type="checkbox"/> AQ50 <input type="checkbox"/> AQ60

Cross-section – Wood					
WCC-flat slab		WCC-ribbed slab		WCC-dowel-beam ceiling	
hCLT:	mm	b:	mm	bDB:	mm
Construction:	mm	h:	mm	hDB (rDB):	mm
Manufacturer:		Material:		Material:	

Please ensure you complete this form in full.
Otherwise, we will be unable to carry out the assessment!

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Connecting		
Screw: <input type="checkbox"/> preliminary measurement <input type="checkbox"/> Hobet 8x155 <input type="checkbox"/> Hobet 8x205	Screw-in angle: <input type="checkbox"/> 45° <input type="checkbox"/> 90°	non-load-bearing intermediate layer <input type="checkbox"/> Yes <input type="checkbox"/> No
Screw spacing <small>$s_{max} < 4 * s_{min}$</small>	s_{min} : _____ mm	
	s_{max} : _____ mm	
Number of rows		

Burning		
wear and tear: <input type="checkbox"/> none <input type="checkbox"/> Fire from below	Burning time: <input type="checkbox"/> none <input type="checkbox"/> R30 <input type="checkbox"/> R60 <input type="checkbox"/> R90	Adhesive: <input type="checkbox"/> heat-resistant <input type="checkbox"/> not heat-resistant

Limit state of serviceability	
Deflection limits $t = 0$:	$w_{inst,grenz}$
	$w_{fin,grenz}$
Deflection limits $t = \infty$:	Deflection factors $t = \infty$: take into account short-term load components <input type="checkbox"/> Yes <input type="checkbox"/> No
Vibrations	Requirements: <input type="checkbox"/> DK I <input type="checkbox"/> DK II <input type="checkbox"/> no requirements
	Lehrsche damping coefficient: _____ %
	Take the rigidity of the screed into account: <input type="checkbox"/> Yes <input type="checkbox"/> No
	d: _____ cm
	E: _____ N/mm ²
	Storage: <input type="checkbox"/> 2-sided <input type="checkbox"/> 4-sided
Point load position: (for 2-sided mounting)	<input type="checkbox"/> Single load in the centre <input type="checkbox"/> Single load at the free edge

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