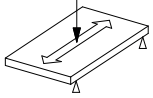
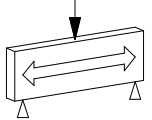
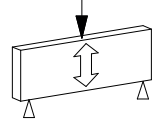
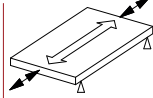
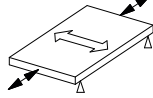


CLT - BEMESSUNGSGRUNDLAGEN

Technisches Merkblatt

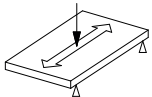
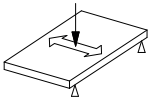
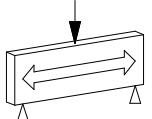
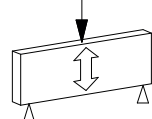
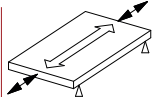
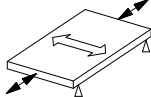
Grundwerte der zulässigen Bemessungs- und Rechenwerte für $f_{m,d}$, $f_{v,d}$, $E_{m,mean}$, und G_{mean} in N/mm²
 SIA 265, $\eta_w = 1.0$, $\eta_t = 1.0$, Holzfeuchte 12%, Eigenlast gemäss SIA 261

CLT-3L

Dicke																									
		$f_{m,d}$	$f_{v,d}$	$E_{m,mean}$	G_{mean}	$f_{c0,d}$	$f_{t0,d}$	$E_{c,0,d}$	$E_{t,0,d}$	$f_{c0,d}$	$f_{t0,d}$	$E_{c,0,d}$	$E_{t,0,d}$	$f_{c0,d}$	$f_{t0,d}$	$E_{c,0,d}$	$E_{t,0,d}$	$f_{c0,d}$	$f_{t0,d}$	$E_{c,0,d}$	$E_{t,0,d}$				
27 mm	$f_{m,d}$	14.9	1.7	9.4	4.7	$f_{c0,d}$	8.3	4.1																	
	3L	$f_{v,d}$	0.8	0.8	1.5	1.5	$f_{t0,d}$	5.7	2.8																
	9/9/9	$E_{m,mean}$	11550	450	8000	4000	$E_{c,0,d}$	8000	4000																
		G_{mean}	50	50	500	500	$E_{t,0,d}$	8000	4000																
30 mm	$f_{m,d}$	14.9	1.7	9.4	4.7	$f_{c0,d}$	8.3	4.1																	
	3L	$f_{v,d}$	0.8	0.8	1.5	1.5	$f_{t0,d}$	5.7	2.8																
	10/10/10	$E_{m,mean}$	11550	450	8000	4000	$E_{c,0,d}$	8000	4000																
		G_{mean}	50	50	500	500	$E_{t,0,d}$	8000	4000																
35 mm	$f_{m,d}$	14.3	2.8	8.1	6.0	$f_{c0,d}$	7.1	5.3																	
	3L	$f_{v,d}$	0.8	0.8	1.5	1.5	$f_{t0,d}$	4.9	3.6																
	10/15/10	$E_{m,mean}$	11050	950	6860	5140	$E_{c,0,d}$	6860	5140																
		G_{mean}	50	50	500	500	$E_{t,0,d}$	6860	5140																
40 mm	$f_{m,d}$	13.6	3.9	7.1	7.1	$f_{c0,d}$	6.2	6.2																	
	3L	$f_{v,d}$	0.8	0.8	1.5	1.5	$f_{t0,d}$	4.3	4.3																
	10/20/10	$E_{m,mean}$	10500	1500	6000	6000	$E_{c,0,d}$	6000	6000																
		G_{mean}	50	50	500	500	$E_{t,0,d}$	6000	6000																
45 mm	$f_{m,d}$	14.9	1.7	9.4	4.7	$f_{c0,d}$	8.3	4.1																	
	3L	$f_{v,d}$	0.8	0.8	1.5	1.5	$f_{t0,d}$	5.7	2.8																
	15/15/15	$E_{m,mean}$	11550	450	8000	4000	$E_{c,0,d}$	8000	4000																
		G_{mean}	50	50	500	500	$E_{t,0,d}$	8000	4000																
50 mm	$f_{m,d}$	14.5	2.5	8.5	5.6	$f_{c0,d}$	7.4	5.0																	
	3L	$f_{v,d}$	0.8	0.8	1.5	1.5	$f_{t0,d}$	5.1	3.4																
	15/20/15	$E_{m,mean}$	11230	770	7200	4800	$E_{c,0,d}$	7200	4800																
		G_{mean}	50	50	500	500	$E_{t,0,d}$	7200	4800																
60 mm	$f_{m,d}$	14.9	1.7	9.4	4.7	$f_{c0,d}$	8.3	4.1																	
	3L	$f_{v,d}$	0.8	0.8	1.5	1.5	$f_{t0,d}$	5.7	2.8																
	20/20/20	$E_{m,mean}$	11550	450	8000	4000	$E_{c,0,d}$	8000	4000																
		G_{mean}	50	50	500	500	$E_{t,0,d}$	8000	4000																
70 mm	$f_{m,d}$	14.3	2.8	8.1	6.0	$f_{c0,d}$	7.1	5.3																	
	3L	$f_{v,d}$	0.8	0.8	1.5	1.5	$f_{t0,d}$	4.9	3.6																
	20/30/20	$E_{m,mean}$	11050	950	6860	5140	$E_{c,0,d}$	6860	5140																
		G_{mean}	50	50	500	500	$E_{t,0,d}$	6860	5140																
80 mm	$f_{m,d}$	15.3	1.0	10.6	3.5	$f_{c0,d}$	9.3	3.1																	
	3L	$f_{v,d}$	0.8	0.8	1.5	1.5	$f_{t0,d}$	6.4	2.1																
	30/20/30	$E_{m,mean}$	11810	190	9000	3000	$E_{c,0,d}$	9000	3000																
		G_{mean}	50	50	500	500	$E_{t,0,d}$	9000	3000																
90 mm	$f_{m,d}$	14.9	1.7	9.4	4.7	$f_{c0,d}$	8.3	4.1																	
	3L	$f_{v,d}$	0.8	0.8	1.5	1.5	$f_{t0,d}$	5.7	2.8																
	30/30/30	$E_{m,mean}$	11550	450	8000	4000	$E_{c,0,d}$	8000	4000																
		G_{mean}	50	50	500	500	$E_{t,0,d}$	8000	4000																
100 mm	$f_{m,d}$	14.5	2.5	8.5	5.6	$f_{c0,d}$	7.4	5.0																	
	3L	$f_{v,d}$	0.8	0.8	1.5	1.5	$f_{t0,d}$	5.1	3.4																
	30/40/30	$E_{m,mean}$	11230	770	7200	4800	$E_{c,0,d}$	7200	4800																
		G_{mean}	50	50	500	500	$E_{t,0,d}$	7200	4800																
110 mm	$f_{m,d}$	15.2	1.2	10.3	3.8	$f_{c0,d}$	9.0	3.4																	
	3L	$f_{v,d}$	0.8	0.8	1.5	1.5	$f_{t0,d}$	6.2	2.3																
	40/30/40	$E_{m,mean}$	11760	240	8730	3270	$E_{c,0,d}$	8730	3270																
		G_{mean}	50	50	500	500	$E_{t,0,d}$	8730	3270																
120 mm	$f_{m,d}$	14.9	1.7	9.4	4.7	$f_{c0,d}$	8.3	4.1																	
	3L	$f_{v,d}$	0.8	0.8	1.5	1.5	$f_{t0,d}$	5.7	2.8																
	40/40/40	$E_{m,mean}$	11550	450	8000	4000	$E_{c,0,d}$	8000	4000																
		G_{mean}	50	50	500	500	$E_{t,0,d}$	8000	4000																

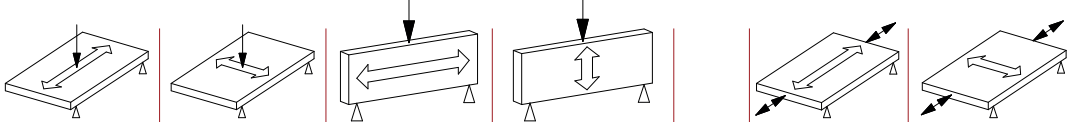
CLT - BEMESSUNGSGRUNDLAGEN

CLT-5L

Dicke	   				 			
	$f_{m,d}$	$f_{v,d}$	$E_{m,mean}$	G_{mean}	$f_{c0,d}$	$f_{t0,d}$	$E_{c0,d}$	$E_{t0,d}$
100 mm	12.3	0.8	9500	50	5.6	1.5	7.4	5.0
5L	0.8	0.8	2500	50	1.5	1.5	5.1	3.4
20/20/20/	12.3	0.8	9500	50	5.6	1.5	7.4	5.0
20/20	0.8	0.8	2500	50	1.5	1.5	5.1	3.4
110 mm	11.8	0.8	9150	50	5.1	1.5	7.9	4.5
5L	0.8	0.8	2850	50	1.5	1.5	5.4	3.1
20/20/30/	11.8	0.8	9150	50	5.1	1.5	7.9	4.5
20/20	0.8	0.8	2850	50	1.5	1.5	5.4	3.1
120 mm	11.0	0.8	8500	50	7.1	1.5	6.2	6.2
5L	0.8	0.8	3500	50	1.5	1.5	4.3	4.3
20/30/20/	11.0	0.8	8500	50	7.1	1.5	6.2	6.2
30/20	0.8	0.8	3500	50	1.5	1.5	4.3	4.3
130 mm	13.3	0.8	10270	50	4.3	1.5	8.6	3.8
5L	0.8	0.8	1730	50	1.5	1.5	5.9	2.6
30/20/30/	13.3	0.8	10270	50	4.3	1.5	8.6	3.8
20/30	0.8	0.8	1730	50	1.5	1.5	5.9	2.6
140 mm	14.3	0.8	11090	50	4.0	1.5	8.9	3.5
5L	0.8	0.8	910	50	1.5	1.5	6.1	2.4
20/40/20/	14.3	0.8	11090	50	4.0	1.5	8.9	3.5
40/20	0.8	0.8	910	50	1.5	1.5	6.1	2.4
150 mm	12.3	0.8	9500	50	5.6	1.5	7.4	5.0
5L	0.8	0.8	2500	50	1.5	1.5	5.1	3.4
30/30/30/	12.3	0.8	9500	50	5.6	1.5	7.4	5.0
30/30	0.8	0.8	2500	50	1.5	1.5	5.1	3.4
160 mm	13.8	0.8	10690	50	3.5	1.5	9.3	3.1
5L	0.8	0.8	1310	50	1.5	1.5	6.4	2.1
40/20/40/	13.8	0.8	10690	50	3.5	1.5	9.3	3.1
20/40	0.8	0.8	1310	50	1.5	1.5	6.4	2.1
170 mm	11.4	0.8	8820	50	6.6	1.5	6.6	5.8
5L	0.8	0.8	3190	50	1.5	1.5	4.5	4.0
30/40/30/	11.4	0.8	8820	50	6.6	1.5	6.6	5.8
40/30	0.8	0.8	3190	50	1.5	1.5	4.5	4.0
180 mm	13.0	0.8	10070	50	4.7	1.5	8.3	4.1
5L	0.8	0.8	1930	50	1.5	1.5	5.7	2.8
40/30/40/	13.0	0.8	10070	50	4.7	1.5	8.3	4.1
30/40	0.8	0.8	1930	50	1.5	1.5	5.7	2.8
200 mm	12.3	0.8	9500	50	5.6	1.5	7.4	5.0
5L	0.8	0.8	2500	50	1.5	1.5	5.1	3.4
40/40/40/	12.3	0.8	9500	50	5.6	1.5	7.4	5.0
40/40	0.8	0.8	2500	50	1.5	1.5	5.1	3.4

CLT - BEMESSUNGSGRUNDLAGEN

CLT-5DL

Dicke								
	$f_{m,d}$	$f_{v,d}$	$E_{m,mean}$	G_{mean}	$f_{c0,d}$	$f_{t0,d}$	$E_{c0,d}$	$E_{t0,d}$
160 mm	15.3	0.8	11810	50	1.0	1.5	3000	9000
5DL	10.6	0.8	50	500	3.5	1.5	500	9000
30+30/40/30+30	15.4	0.8	11930	50	0.5	1.5	2120	9880
5DL	11.6	0.8	50	500	2.5	1.5	500	9880
40+30/40/30+40	15.5	0.8	11980	50	0.2	1.5	500	10670
5DL	12.5	0.8	50	500	1.6	1.5	500	10670
40+40/20/40+40	15.4	0.8	11900	50	0.6	1.5	2400	7200
5DL	11.3	0.8	50	500	2.8	1.5	500	7200
40+40/40/40+40	15.4	0.8	11900	50	0.6	1.5	2400	7200
5DL	11.3	0.8	50	500	2.8	1.5	500	7200

CLT-7L

200 mm	8.4	0.8	6530	50	8.8	1.5	4800	4800
7L	5.6	0.8	50	500	5.6	1.5	500	4800
20/40/20/40/20/40/20	13.0	0.8	10030	50	4.0	1.5	8730	8730
7L	10.3	0.8	50	500	3.8	1.5	500	8730
40/20/40/20/40/20/40	10.0	0.8	7750	50	7.3	1.5	6000	6000
7L	7.1	0.8	50	500	7.1	1.5	500	6000
30/40/30/40/30/40/30	15.2	0.8	11770	50	1.1	1.5	9820	9820
7DL	11.5	0.8	50	500	1.1	1.5	500	9820
40+40/20/20/40+40	15.0	0.8	10610	50	1.5	1.5	2000	10000
7DL	11.8	0.8	50	500	1.5	1.5	500	10000
40+40/20/40/20/40+40	14.7	0.8	11360	50	2.1	1.5	9230	9230
7DL	10.8	0.8	50	500	2.1	1.5	500	9230
40+40/30/40/30/40+40	14.3	0.8	11090	50	2.7	1.5	8570	8570
7DL	10.1	0.8	50	500	2.7	1.5	500	8570

CLT-7DL

220 mm	15.2	0.8	11770	50	1.1	1.5	9820	9820
7DL	11.5	0.8	50	500	1.1	1.5	500	9820
40+40/20/20/40+40	15.0	0.8	10610	50	1.5	1.5	2000	10000
7DL	11.8	0.8	50	500	1.5	1.5	500	10000
40+40/20/40/20/40+40	14.7	0.8	11360	50	2.1	1.5	9230	9230
7DL	10.8	0.8	50	500	2.1	1.5	500	9230
40+40/30/40/30/40+40	14.3	0.8	11090	50	2.7	1.5	8570	8570
7DL	10.1	0.8	50	500	2.7	1.5	500	8570

CLT – BEMESSUNGSGRUNDLAGEN

CLT-8DL

Dicke								
300 mm	$f_{m,d}$	14.2	2.7	11.3	2.8	$f_{c0,d}$	11.3	2.8
8DL	$f_{v,d}$	0.8	0.8	1.5	1.5	$f_{t0,d}$	6.8	1.7
40+40/30/40	$E_{m,mean}$	11010	990	9600	2400	$E_{c,0,d}$	9600	2400
+40/40+40	G_{mean}	50	50	500	500	$E_{t,0,d}$	9600	2400
320 mm	$f_{m,d}$	13.8	3.4	10.6	3.6	$f_{c0,d}$	10.6	3.5
8DL	$f_{v,d}$	0.8	0.8	1.5	1.5	$f_{t0,d}$	6.4	2.1
40+40/40/40	$E_{m,mean}$	10690	1310	9000	3000	$E_{c,0,d}$	9000	3000
+40/40+40	G_{mean}	50	50	500	500	$E_{t,0,d}$	9000	3000

Diese Werte gelten jeweils für die aufgeführten Plattenaufbauten.

Holzqualität:

Decklagen C24

Mittellagen C20

Brandverhalten:

D-s2, do nach EN 13501.1, entspricht Brandverhaltensgruppe RF3

Brandkennziffer:

4.3

Europäische technische Zulassung:

ETA-19/0675