

Product	Wooden formwork H20 beams		
Wood species	Spruce, fir		
Wood moisture	12 % +/- 2 % at delivery		
Weight	4,5 kg/m		
Gluing	Melamine resin-based adhesive, adhesive type I EN 301-approved for gluing of load bearing timber components		
Surface protection	The beam is waterproofed using a water repellent color glaze		
Chord	<ul style="list-style-type: none"> • Made of carefully selected spruce wood • Finger-jointed, solid wood cross-sections with a dimension of 80 x 40 mm • Finger-jointing of the chords • Web milling on the opposing side of the core (left-sided chord surface) • Planed and chamfered to approx. 0.4 mm 		
Web	3-ply solid wood panel, laminated primarily showing vertical growth rings		
Surface protection	Treatment of entire beam using a water-resistant color stain		
Support	Due to the 3-ply solid wood webs, Extrabeam H20 and Extrabeam H20+ can be cut into and supported at any length		
Dimensions and tolerances	Dimension	Value^a	Tolerance^b
	Beam height	200 mm	± 2 mm
	Chord height	40 mm	± 0,6 mm
	Chord width	80 mm	+ 0,8 mm / - 1,2 mm
	Web thickness	28 mm	± 1 mm
	a) These values apply at a wood moisture content of 12 % ± 2%		
b) According to standard SIST EN 13377:2002			
Technical specifications	Qualities	DIN1052-1:1988-04	DIN1052:2008-12 / Eurocode 5
	Strains	Permissible stress values	Characteristic limits of load-bearing capacity
	Shearing force	ZUL Q = 11,0 kN	$V_k = 23,9$ kN
	Bending moment	ZUL M = 5,0 kNm	$M_k = 10,9$ kNm
	Support	-	$R_{b,k} = 47,8$ kN
	Section modulus ¹	$W_x = 461$ cm ³	
	Geometrical moment of inertia ¹	$I_x = 4.613$ cm ⁴	
	Elasticity modulus	$E = 10.000$ N / mm ²	
	Shearing modulus	$G = 600$ N / mm ²	
1) The values of the section modulus and the geometrical moment of inertia apply to new or used concrete formwork beams. An analogously increased factor of safety needs to be added for severely worn beams			
Standard lengths	1,95 / 2,45 / 2,65 / 2,90 / 3,30 / 3,60 / 3,90 / 4,50 / 4,90 / 5,90 / max. 6 m		
Packaging	Standard packaging: 50 pcs package / Container packaging: 100 pcs package The packages are ready to be immediately used at the construction site. The package is placed on supporting wood, protecting the formwork beams and provides simple use with forklift.		



Extrabeam H20 and Extrabeam H20+ are the strongest and lightest formwork beams made of engineered fir and spruce wood. Our formwork beams are produced in various standard lengths.

With Chords made of high-quality and graded massive finger-jointed timber, Webs made with a 3-ply laminated wood panels and optional protective cap that prevents the beam to be exposed to premature chipping on the chord ends, Extrabeam H20 and Extrabeam H20+ assure sustainability and durability in all climate zones.

Qualities

1. The Extrapanel shuttering panel is a high-quality 3-ply solid wood panel, made of spruce and fir wood. It consists of the layers glued crosswise with perimeter frame in the middle layer.

2. Its entire surface is protected and coated on both sides with highly resistant melamine resin, thus making it watertight and water-repelling, ensuring smooth surface of concrete constructions.

3. Edge band is also coated with a watertight cover, preventing moisture from penetrating into the middle, thus giving extra strength to the panel.

4. The important quality of our panel is its bending strength.

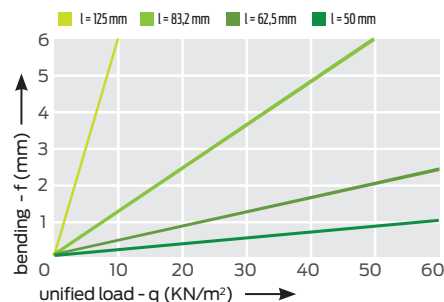
5. The quality of the panel fully complies with the DIN 68705 standard (this is approved by the test, made by the Slovenian National Building and Civil Engineering Institute) and is pursuant to the Austrian standard ÖN B 3023.

Product	3-ply concrete formwork panel coated with melamine resin that allows a resistant and smooth surface
Wood species	Spruce, fir, mixed types permitted
Wood moisture	12 % +/- 2 % at delivery
Thickness	21 mm, 27 mm, 30mm
Weight	21 mm = 10 kg/m ² 27 mm = 12,3 kg/m ² 30mm = 13.8 kg/m ²
Surface protection	Highly resistant melamine coating, extremely smooth surface
Standard packaging	21 mm / 50 pcs package, 27 mm / 40 pcs package, 30 mm / 35 pcs package The packages are ready to be immediately used at the construction site. The package is placed on supporting wood, protecting the panels and provides simple use with forklift.

Format Specification

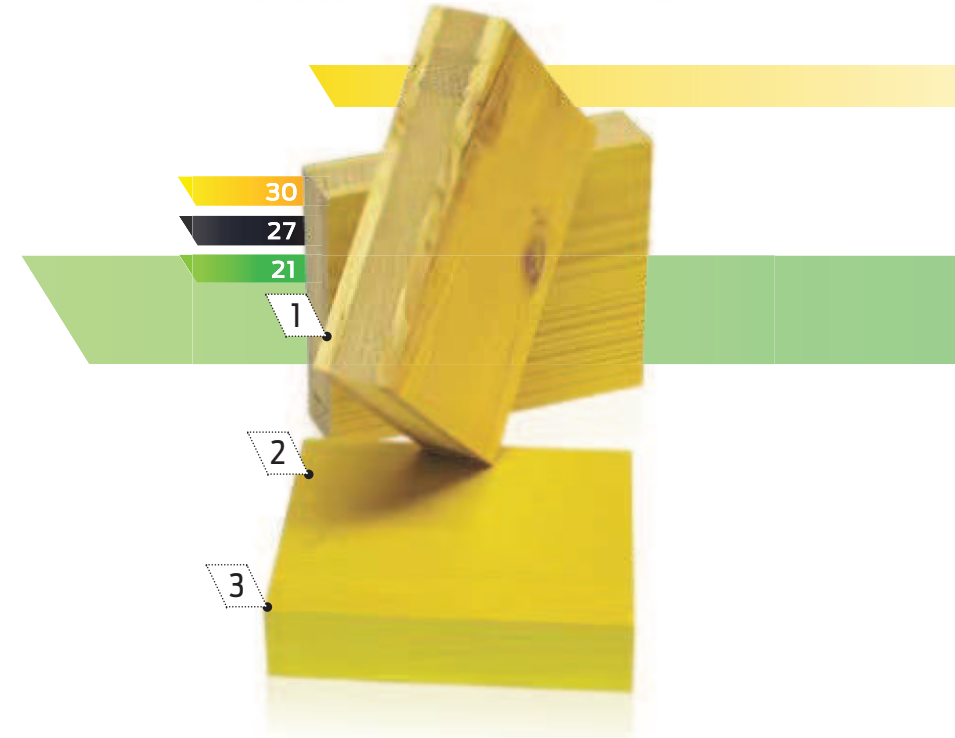
Thickness mm	27, 30	27, optional	21, optional
Width mm	500	200, 250, 300, 350, 400, 450	500
Length mm	1000, 1500, 2000, 2500, 3000	3000	1000, 1500, 2000, 2500, (3000)

Bending strength chart*



The diagram shows how the panel reacts when loaded, considering the space intervals in between the supporting elements. Therefore q stands for uniform load (in KN/m² units), l stands for the space interval in between the supporting elements and f (bending) is stated in mm.

* Optimal carrying capacity for thickness of 21 mm is achieved by support for every 300 mm, whereas for thickness of 27 mm, optimal capacity is achieved with support for every 500 mm.



Extrapanel shuttering panels are high-quality, 3-ply wooden panels, made of spruce and fir wood acquired from sustainable forests. The panels are fully coated with a highly resistant melamine resin, giving them excellent protection. They are mostly used for paneling concrete constructions, but can also be used for other purposes due to their exceptional functionality. They are distinguished for their superior quality, durability and multiple use.

Chart of value of charge

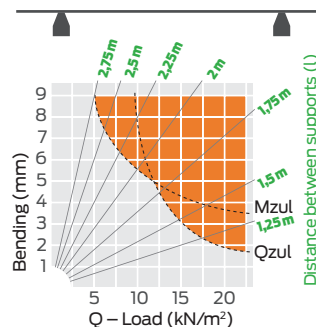
Floor thickness (cm)	Total load (kN/m ²)	Max. permissible support width of the crossbeam (m) = distance between main beams (m)				Max. permissible support width = distance between supports (m)								
		Distance between crossbeams (m)				Selected distance between the main beams (m)								
		0,50	0,625	0,667	0,75	1,00	1,25	1,50	1,75	2,00	2,25	2,50	3,00	3,50
10	4,38	3,70	3,43	3,35	3,22	2,93	2,72	2,50	2,31	2,16	2,04	1,93	1,70	1,45
12	4,91	3,50	3,24	3,17	3,05	2,77	2,57	2,36	2,19	2,05	1,92	1,82	1,52	1,30
14	5,43	3,32	3,09	3,02	2,91	2,64	2,45	2,24	2,08	1,94	1,82	1,64	1,37	1,18
16	5,95	3,19	2,96	2,90	2,79	2,54	2,35	2,14	1,98	1,85	1,66	1,50	1,25	1,07
18	6,48	3,07	2,85	2,79	2,69	2,44	2,25	2,06	1,90	1,72	1,53	1,38	1,15	0,99
20	7,00	2,97	2,76	2,70	2,60	2,36	2,17	1,97	1,82	1,59	1,42	1,28	1,07	0,91
22	7,53	2,88	2,68	2,62	2,52	2,29	2,09	1,90	1,69	1,48	1,32	1,19	0,99	0,85
24	8,05	2,81	2,61	2,55	2,45	2,23	2,02	1,84	1,58	1,39	1,23	1,11	0,93	0,80
26	8,57	2,74	2,54	2,49	2,39	2,18	1,95	1,73	1,49	1,30	1,16	1,04	0,87	0,75
28	9,10	2,67	2,48	2,43	2,34	2,12	1,89	1,63	1,40	1,23	1,09	0,98	0,82	0,71
30	9,68	2,61	2,43	2,38	2,29	2,06	1,83	1,54	1,32	1,15	1,03	0,93	0,77	0,65
35	11,25	2,49	2,31	2,26	2,18	1,90	1,59	1,32	1,14	0,99	0,89	0,80	0,66	0,56
40	12,83	2,38	2,21	2,17	2,07	1,74	1,39	1,16	1,00	0,87	0,78	0,70	0,58	0,49
45	14,40	2,29	2,13	2,07	1,94	1,55	1,24	1,04	0,89	0,78	0,69	0,62	0,51	0,44
50	15,97	2,22	2,03	1,96	1,84	1,40	1,12	0,94	0,80	0,70	0,62	0,56	0,46	0,40
55	17,54	2,15	1,93	1,87	1,69	1,27	1,02	0,85	0,73	0,63	0,56	0,51	0,42	0,36
60	19,11	2,07	1,85	1,75	1,56	1,17	0,94	0,78	0,66	0,58	0,52	0,46	0,39	0,33
65	20,68	1,98	1,72	1,62	1,44	1,08	0,87	0,72	0,61	0,54	0,48	0,43	0,36	0,31
70	22,26	1,91	1,60	1,50	1,34	1,01	0,81	0,66	0,57	0,50	0,44	0,40	0,33	0,28
75	23,83	1,85	1,50	1,41	1,25	0,94	0,75	0,62	0,53	0,47	0,41	0,37	0,31	0,27
80	25,40	1,76	1,41	1,32	1,17	0,88	0,71	0,58	0,50	0,44	0,39	0,35	0,29	0,25
85	26,97	1,65	1,32	1,24	1,11	0,83	0,66	0,55	0,47	0,41	0,37	0,33	0,27	0,23
90	28,54	1,56	1,25	1,17	1,05	0,79	0,62	0,52	0,44	0,39	0,35	0,31	0,26	0,22
95	30,11	1,48	1,19	1,11	0,99	0,75	0,59	0,49	0,42	0,37	0,33	0,29	0,25	0,21
100	31,69	1,41	1,13	1,06	0,94	0,71	0,56	0,47	0,40	0,35	0,31	0,28	0,23	0,20

Example of calculation: Floor thickness: 20 cm, distance between crossbeams: 0,75 m; we are looking for the distance between the main beams and the supports.

The permissible distance between main beams according to **table 1 = 2,60 m**. The identical or next smaller distance between main beams in **table 2 = 2,5 m**. Look for the permissible distance between supports in **table 2**, read downwards in column «2,50 m» and sideways in row «20 cm» floor thickness, the result is **1,28 m**. Caution! Examine the supports to ensure the corresponding carrying force.

Bending, which takes place with formwork beams, loaded by particular force at different space intervals of support.

Single span beam



Multi span beam

