B E A M

HABE - 20

Building and living

LANA

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Beam

Wooden beam for formwork, consisting of an upper and lower wing and featuring a central section consisting of three layers. The union is designed as a notched and glued joint.

Heads

Fir wood of the highest quality, calibrated with levelled edges and with finger type joints along their length.

Webs

Of a three-layer board with a thickness of 27 mm.

Joint

Notched, finger-type joint between core and wings, throughout their length. High-frequency, high-strength gluing.

Anti-humidity treatment

Protective paintwork throughout the beam.

Standard sizes

Length: 1950, 2450, 2650, 2900, 3300, 3600, 3900, 4500, 4900, 5900, mm
Width: 200 mm
Thickness: 80 mm

Packaging

50-piece package

Weight

Per linear metre: 4,7 kg.

Dimensions and tolerances

Dimensions [1]	HABE 20	Tolerances [2]
Beam height (mm)	200	(+/- 2 mm)
Head height (mm)	40	(-1,5 %)
Head width (mm)	80	(-1,5 %)
Web thickness (mm)	26,8	(+/- 0,5 mm)

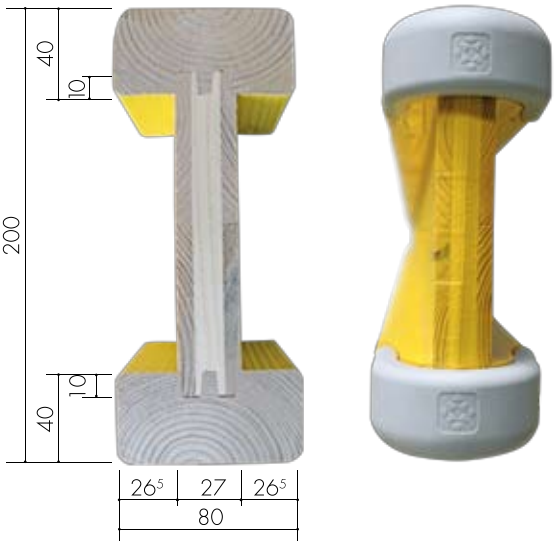
[1] these values apply at a wood moisture content of 12%
[2] pursuant to approval notice Z-9. 1-146

Technical specifications

	HABE 20
Permissible modulus (kNm)	5
Permissible shearing force Q (kN)	11
Section modulus[1] Wx (cm^3)	461
Geometrical moment of inertia[1] Jx (cm 4)	4613

[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.

Admissible Bending Moment: M= 5.0 kNm
Admissible Transversal Strength: Q= 11.0 kN



Advantages

Strength and Safety

Dimensional stability and recovery capacity after application of load. High load capacity throughout their length. Protection against humidity, knocks and splintering.

Lightness

Easy handling and quick assembly. Minimum weight.

Economical

Can be used many times. Good ratio between price and uses. Easy storage.

Adaptability to bullding work

Ideal for use with three-layer board. The beam can be cut at any point. Supports can be placed between beams at any point. Can be used in any kind of formwork.

Applications

Reticular formwork • Flat main beam • Walls • Civil Works

SLAB THICKNESS	TOTAL LOAD	CROSS BEAMS distance between crossbeams (m)			MAIN BEAMS selected distance between main beams (m)								
cm	KN/m²	0,5	0,625	0,75	1	1,25	1,5	1,75	2	2,25	2,5	2,75	3
		Max. Permissible support distance = distance between Main Beams			Max. Permissible supoort distance = Distance between supports								
10	4,35	3,20	2,98	2,80	2,54	2,36	2,22	2,11	2,02	1,94	1,87	1,82	1,68
12	4,87	3,09	2,87	2,70	2,45	2,27	2,14	2,03	1,94	1,87	1,80	1,64	1,50
14	5,39	2,98	2,77	2,61	2,37	2,20	2,07	1,97	1,88	1,81	1,63	1,48	1,36
16	5,91	2,89	2,69	2,53	2,30	2,13	2,01	1,91	1,82	1,65	1,48	1,35	1,24
18	6,43	2,81	2,61	2,46	2,23	2,07	1,95	1,85	1,71	1,52	1,36	1,24	1,14
20	6,95	2,74	2,55	2,39	2,18	2,02	1,90	1,81	1,58	1,40	1,26	1,15	1,05
22	7,47	2,68	2,48	2,34	2,12	1,97	1,86	1,68	1,47	1,30	1,17	1,07	0,98
24	7,99	2,62	2,43	2,29	2,08	1,93	1,81	1,57	1,37	1,22	1,10	1,00	0,91
26	8,51	2,56	2,38	2,24	2,03	1,89	1,72	1,47	1,29	1,14	1,03	0,94	0,86
28	9,03	2,51	2,33	2,19	1,99	1,85	1,62	1,39	1,21	1,08	0,97	0,88	0,81
30	9,55	2,47	2,29	2,15	1,96	1,83	1,53	1,31	1,15	1,02	0,92	0,83	0,76
32	10,07	2,42	2,25	2,12	1,92	1,74	1,45	1,24	1,09	0,97	0,87	0,79	0,72
34	10,59	2,38	2,21	2,08	1,89	1,66	1,38	1,18	1,03	0,92	0,83	0,75	0,69
36	11,11	2,34	2,18	2,05	1,86	1,58	1,31	1,13	0,99	0,88	0,79	0,72	0,66
38	11,63	2,31	2,14	2,02	1,83	1,51	1,26	1,08	0,94	0,84	0,75	0,68	0,63
40	12,15	2,28	2,11	1,99	1,81	1,44	1,20	1,03	0,90	0,80	0,72	0,65	0,60
45	13,45	2,20	2,04	1,92	1,63	1,30	1,09	0,93	0,81	0,72	0,65	0,59	0,54
50	14,75	2,13	1,98	1,86	1,49	1,19	0,99	0,85	0,74	0,66	0,59	0,54	0,49
55	16,05	2,07	1,93	1,81	1,37	1,09	0,91	0,78	0,68	0,60	0,54	0,49	0,45
60	17,35	2,02	1,88	1,77	1,26	1,01	0,84	0,72	0,63	0,56	0,50	0,46	0,42

Max. Deflection of the beam — L / 500
Live load — 1,5 kN/m² or 20 % of the concrete weigth
Permissible carryng force of the supports — A = Min. 22 kN

Technical specificatio, security workload
Permitted bending moment — Q = 11 kN
Permitted shear force — M = 5 kNm

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AZK/080460

Rev.: 01

Certificate of compliance
ÜZ-BWU03-I 14.24.29
MPA Stuttgart

according EN 13377
in conjuncion with DIN V 200000-2

Gluing licence C
according DIN 1052:2008
MPA Stuttgart

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