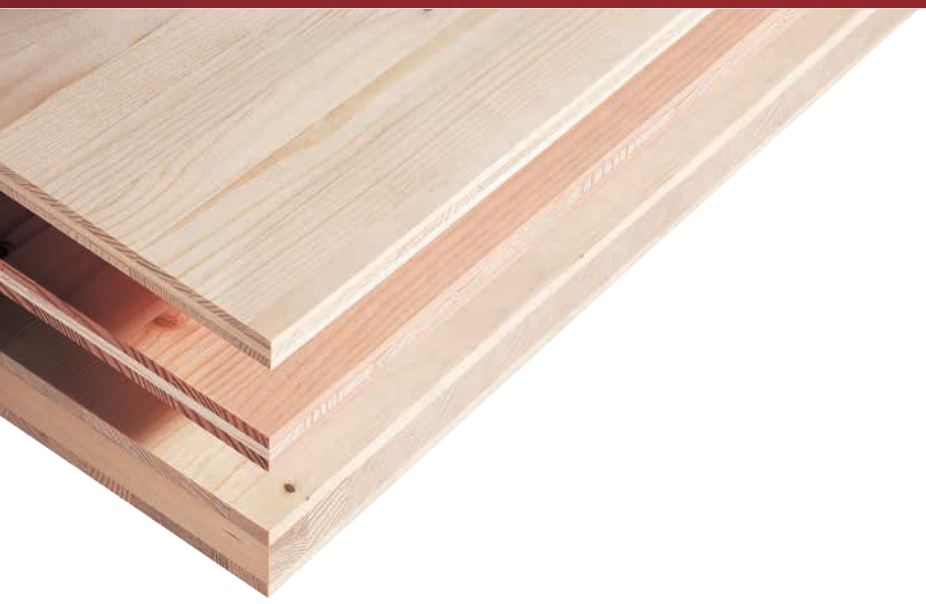
WHERE
IDEAS
CAN
GROW.

MAYR MELNHOF HOLZ



K1 multiplan

3-ply structural panels

WHERE IDEAS CAN GROW.

Mayr-Melnhof Holz Holding AG is one of the leading companies in the timber-processing industry in Europe, a major producer of glued laminated timber, and a driving force in the advance of cross laminated timber, the material for buildings of the future. Only with strong roots can you grow and flourish; processing timber exclusively from sustainably managed forests, the roots of the Mayr-Melnhof Holz group of companies go back to 1850. Secure raw material supply, chain of custody traceability, transparent product quality assurance and ongoing process optimization are the foundations of more than 170 years of reliability and product quality at Mayr-Melnhof Holz.

Products of Mayr-Melnhof Holz

MM masterline
Glued-laminated timber

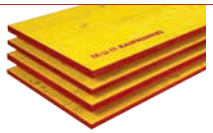
MM vistaline
Duo-/Trio beams

MM profideck
Glulam ceiling elements

MM blockdeck
Floor and wall beams

MM HBE
Solid timber construction element

MM crosslam
Cross-laminated timber



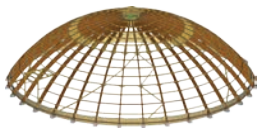
K1 yellowplan
Formwork panels

HT 20plus
Formwork beams

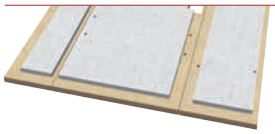
MM sawn timber

MM royalpellets

Custom elements & engineering solutions



MM complete
Timber engineering & turn-key construction
by HUTTEMANN



XLAM CONCRETE®
Timber-concrete composite element
by MMK

CONTENTS

Mayr-Melnhof Holz Holding AG
Turmgasse 67 · 8700 Leoben · Austria
T +43 3842 300 0
holding@mm-holz.com · www.mm-holz.com

K1 multiplan

3-ply structural panels

The tough panel – often imitated, but never reached.

The **K1 multi**plan is a 3-layer solid timber board for most structural load-bearing applications. For more than 25 years, this construction board has had an impeccable track record due to its extraordinary high load-bearing capacity and dimensional stability. With thicknesses from 20 to 75 mm and dimensions from 2 x 6 m or individual cuts, it is extremely versatile.

Areas of application

- Load-bearing roof, ceiling and wall elements
- Bracing and space enclosing panel
- Plane area-covering structural elements
- Curved area-covering structural elements
- Structurally effective acoustic panels
- Exterior wall cladding
- Special shapes can be machined from large panels
- Not suitable for decorative applications

Properties

- Large format, extremely strong structural panel
- Standard formats 2 x 6 m
- Thicknesses from 20 to 75 mm
- Covering layer made of spruce or Siberian larch
- Load-bearing and bracing functions
- Natural building material, climate-friendly
- Visually attractive surfaces
- Quality-controlled manufacturing

CE

Certificate according to the Construction Product Regulation - CPR
EN 14080:2013

PEFC
PEFC/06-38-79
Promoting Sustainable Forest Management
www.pefc.org

Facts K1 multiplan

Types of wood
- Domestic spruce
- Siberian larch

Wood type of middle layer
- Spruce / fir

Thicknesses
- 20 – 75 mm

Formats
- Standard format 2 x 6 m
- Special format regarding width and length

Surface qualities
- B/C, C/C
- Sanded

Product standard
- EN 13986 / 13353
- DIN 20000-1

Versatile and exceptionally sturdy.

K1 multiplan is suitable for load-bearing and bracing applications. In addition, it is used for exterior wall cladding. The panel is produced from selected domestic spruce or durable Siberian larch in a unique production process.

Planners, engineers and timber builders have relied on the proven advantages of K1 multiplan for almost two decades.

Advantages

Load-bearing roof elements

There is no better alternative for load-bearing roof and floor elements in residential or hall construction than **K1 multi**plan . By finger-jointing the already large standard formats of 2 x 6 m, the panel can be produced up to 18 m length.
It is even possible to realise exceptional architectural designs economically and with versatility.

- Structurally effective system
- Underside in visible quality
- Possible integration of insulation, services and roof covering

Roof elements, exhibition hall 26, Hannover, Germany

Curved area-covering structural elements

K1 multiplan copes with exceptional geometrical requirements. In conjunction with curved glulam ribs, the three-layer panel adapts effortlessly to the desired shape and becomes a integrated load-bearing unit.

- Flexibility in design
- High degree of prefabrication
- Combination of load bearing and bracing functions

Manufacturing facility, Matrei, Austria

Acoustic panels including bracing

Extreme climatic conditions such as temperature and humidity are no problem at all for **K1 multi**plan.
Even the acoustic requirements at the Dornbirn ice skating arena were solved to perfection with the help of an individual hole pattern.

- Combines load-bearing and acoustic functions
- Large format, shapeable structural panel
- Selectable hole pattern and grid

Ice skating arena, Dornbirn, Austria

Cantilevered roof structures

Large roof projections, high snow loads: this is where K1 **multi**plan proves its real strength. It fulfils a load-bearing function and is a design element at the same time.

- Attractive, visually graded timber surface in spruce or larch
- Panel thicknesses to 75 mm allow free-spanning of cantilevered roofs
- Creative design possibilities though large format and cutting to size using CNC

Soccer stadium, Bregenz, Austria

Special shapes with maximum load-bearing capacity

The excellent strength and high load-bearing capacity enables K1 **multi**plan to be used in many special applications, such as a curved segments in domes, as I-beams in plane load-bearing structures or as CNC-machined panels in exhibition constructions.

- Individually machined from large format panels
- Panels machined with CNC-technology
- Machine-finished structural components

Dormitory, Barcelona, Spain

Natural aesthetics in exterior wall construction

Thanks to the unique production process in which large laminated blocks are re-sawn to obtain solid and stable plies, the cross-layered K1 **multi**plan offers a high degree of dimensional stability. Considering the natural behavior of exposed timber surfaces, it is suited for the application in exterior wall paneling. There is a choice between panels made from domestic spruce or the more durable Siberian larch.

- Reduced number of joints thanks to large formats
- Cracks may appear subject to UV and temperature exposure

Technical data

Product

Triple-layer solid timber board for structural, constructional applications in B/C and C/C quality.

Types of wood

- Spruce (picea abies) from domestic forests
- Siberian larch (Larix spp.)
- Douglas fir on request (depending on project size)

Product standard

- EN 13986 / 13353
- Technical class SWP/3 SD
- CE marking no. 0672 – CPR – 0599

Physical characteristics

- Raw density spruce > 410 kg/m^3
- Raw density Siberian larch > 500 kg/m^3
- Heat conductivity = 0,13 W/(mK)
- Diffusion resistance μ = 190 – 220
- Wood moisture 10 – 12% +/– 2%

Lay-out

- Blocked, glued crosswise with MUF glue
- Joint-glued covering and middle layers
- Covering layer spruce or Siberian larch
- Middle layer wood type spruce / fir
- Emission class E1 << 0,1 ppm HCHO
- SWP/3 suitable for exterior application

Surface qualities

- B-quality: visible quality (not decorative)
- C-quality: non-visible quality
- Surface, fully sanded
- Lamella optics width 34 mm

Shrinkage and swelling behaviour

- Length and width 0,01 to 0,02 %
- Thickness 0,24 % per % wood moisture difference
- Surface cracks induced by climate and the installation setting

Dimensional tolerances

In line with EN 13353 (dimensional tolerances for large and medium-size format panels)

Lengths up to 6,000 mm:	±	2 mm
Widths up to 2,000 mm:	±	2 mm
Thickness tolerance in the panel:	±	0.5 mm
Limiting deviation for thickness:	±	1 mm

Product range

Panel formats

Standard format: 6,020 x 2,015 mm

The **K1 multi**plan standard format is delivered with an additional allowance of 20 mm in the length and 15 mm in the width. If the allowance is not required, the exact delivery dimensions must be specified in the order.

Delivery dimensions: 6,020 x 2,015 mm
Invoiced dimensions: 6,000 x 2,000 mm

Panel thickness [mm]

d	20	26	30	35	40

Type of wood: spruce; covering layer d1 ≤ 6,7 mm

d	40	44	50	55	60	65	70	75

Type of wood: spruce; covering layer d1 = 13 mm

In-stock panels (only spruce wood)

d	20	26	30	35	40
Dimensions [m]	2 x 6	2 x 6	–	–	2 x 6

Type of wood: spruce; covering layer d1 ≤ 6,7 mm

d	40	45	50	55	60	65	70	75
Dimensions [m]	–	–	2 x 6	–	–	2 x 6	–	–

Type of wood: spruce; covering layer d1 =13 mm

Minimum order quantity

Not readily available spruce timber boards with a standard format of 600 x 200 cm are produced at client's request from a volume of 60 m² per board thickness.

Special formats of **K1 multi**plan made of spruce timber are produced from a minimum order volume of 300 m² per format.

Special formats for spruce timber:

- Width 150 cm Lange 500 cm / 550 cm / 600 cm
- Width 175 cm Lange 500 cm / 550 cm / 600 cm
- Width 200 cm Lange 450 cm / 500 cm / 550 cm

Prices include a surcharge and are based on the next higher dimension, e.g. ordered dimension 420 x 130 cm = invoiced width 500 x 150 cm.

K1 multiplan with larch timber covering layer is only produced in the formats 600 x 200 cm and 500 x 200 cm. The minimum order volume is 300 m² per format.

Packing and Storage

- Boards with B side up
- Packaged in film with protective lamella
- Ensure a straight, even base.
- Protect from the influence of weather
- Long-term storage with supporting timbers at a 1 m distance

d	20	26	30	35	40
St	20	15	15	15	10

St = number per package, covering layer d1 ≤ 6,7 mm

d	40	45	50	55	60	65	70	75
St	10	10	10	10	10	5	5	5

St = number per package, covering layer d1= 13 mm

Quality

Surface quality

Spruce	B- visual surface quality	C- non-visual surface quality
General Requirements	Proper gluing, no open joints	Proper gluing
Structure, grain direction, figuring	Strong timber structure and slight spiral grain permissible, vertical or horizontal annual growth rings	No special requirements
Knots	Healthy firmly intergrown branches and isolated black knots permissible	No special requirements
Loose knots	Permissible, max. 3 pieces / panel max. ø 10 mm	No special requirements
Circular plugs	Permissible, max. 3 pieces/m^2 no in-line configuration	No special requirements
Resin pockets	Low-resin, large resin pockets patched with 5 x 50 mm boat plugs	No special requirements
Bark pockets	Permissible if isolated	No special requirements
Cracks	Slight surface cracks permissible if isolated, penetrative end cracks up to 50 mm long permissible	No special requirements
Pith	Permissible	No special requirements
Compression wood	Permissible	No special requirements
Insect attack, worm-holes	Inadmissible	Insect infestation inadmissible, isolated wormholes admissible
Discolouration, fungal attack	Isolated occurrences of slight discolouration permissible (e.g. blue stain)	No special requirements, not inadmissible
Surface condition	Isolated small faults permissible	No special requirements
Mixing of wood types	Inadmissible	Inadmissible

Larch	B- visual surface quality	C- non-visual surface quality
Similar to spruce except for the following	In some cases a small proportion of sapwood is possible; differences in colour to the heartwood are therefore possible	

Quality criteria correspond to EN 13017-1

Quality assurance

In-house production controls and twice-yearly external monitoring by independent institutes from Austria and Germany. Continuous product tests and documentation of the processes form the basis of the Mayr-Melnhof Holz quality assurance.

Additional services

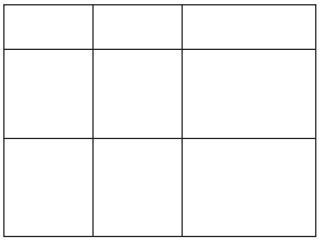
Format cuts

In principle, the standard formats 6 x 2 m is delivered with an addition of 20 mm in length and 15 mm in width. Please note: this rule also applies to all panels in stock.

Exact format cuts are possible without any problem thanks to state-of-the-art crosscut saws and the CNC-machining portal on request and at a surcharge. For the format cuts, there is a distinction between three different types:

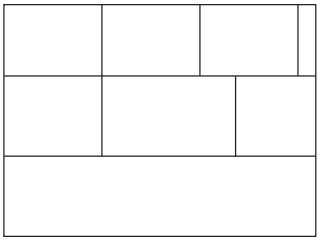
Type 1: Format cut with continuous length and width cut

This format cut separates the panel in the longitudinal and transverse direction in one continuous cut. This format cut may already be undertaken during the production process with the fixedly installed crosscut saws, and thus is the most cost-effective variant.



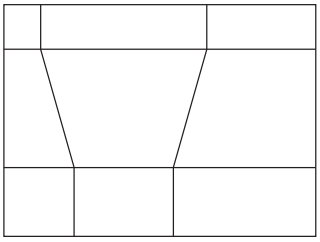
Type 2: Format cut with stepwise length or width cuts

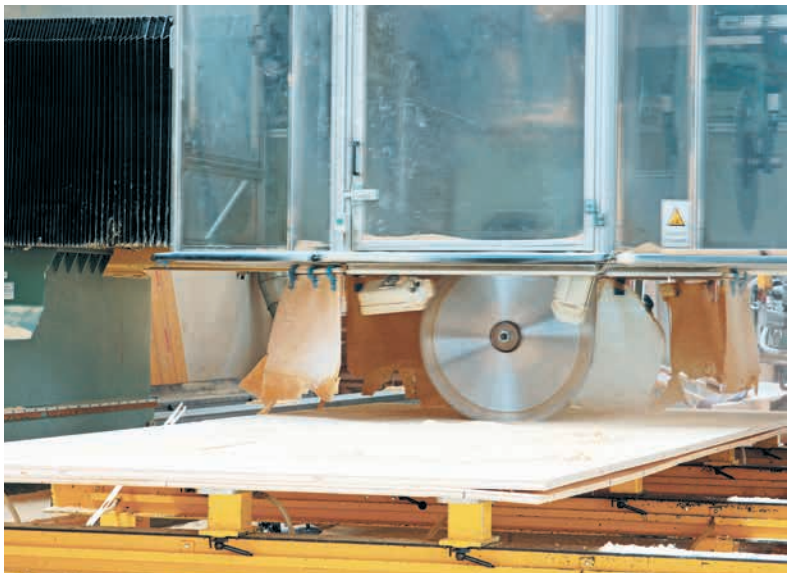
This format cut cannot be undertaken during the production process, but is executed on the panel crosscut saw or the CNC-machining portal. The cuts are no longer continuous, but are undertaken individually, i.e. first the longitudinal cuts, and the transverse cuts in the 2nd step, or vice versa.



Type 3: Special cuts

Cuts, which are not covered by types 1 or 2, are considered special cuts. These include, among others, angular and non-linear cuts. Special cuts can be undertaken on the CNC-machining portal or manually. In any case, a drawing is required for price calculation.

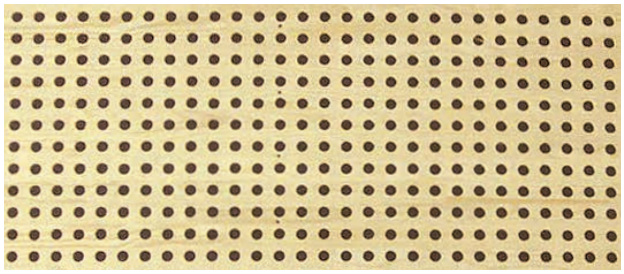




Punching and slotting

Likewise, the **K1 multi**plan panel is excellently suited for use as an acoustic panel. Depending on the specification, the panels can be provided with an individual and acoustically optimised hole or slot pattern, respectively. For that, the following options are available in regards to the hole or slot geometry:

Hole diameter:	6, 8, 10, 12, 14 AND 16 mm
Hole grid:	20/20, 25/25, 33/33, 50/50 and 100/100 mm
Slot width:	at least 20 mm



Material Properties

Characteristic strength values and stiffnesses of selected panel types in N/mm² for dimensioning acc. to EN 13986

Nominal thickness of the triple layer board													
Nominal thickness	20 mm	26 mm	30 mm	35 mm	40 mm	40 mm	45 mm	50 mm	55 mm	60 mm	65 mm	70 mm	75 mm
Covering layer	6,7 mm	6,7 mm	6,7 mm	6,7 mm	6,7 mm	13 mm	13 mm	13 mm	13 mm	13 mm	13 mm	13 mm	13 mm
Strain on the board													
$f_{m,0,k}$	42,0	36,0	32,0	27,0	22,0	28,0	26,4	24,9	23,3	21,7	20,1	18,6	17,0
$f_{m,90,k}$	6,0	10,0	12,5	15,5	19,0	6,5	7,4	8,4	9,3	10,2	11,1	12,1	13,0
$E_{m,0,mean}$	10.400	9.700	9.200	8.600	8.000	9.000	8.700	8.400	8.100	7.900	7.600	7.300	7.000
$E_{m,90,mean}$	960	1.800	2.300	2.900	3.600	800	1.200	1.500	1.900	2.200	2.600	2.900	3.300
$f_{v,0,k}$	1,4	1,4	1,3	1,3	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2
$f_{v,90,k}$	1,4	1,4	1,4	1,4	1,4	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2
G_{mean}	41	41	41	41	41	41	41	41	41	41	41	41	41
Strain on the slab													
$f_{m,0,k}$	18,0	16,2	15,0	13,5	12,0	16,0	15,0	14,0	13,0	12,0	11,0	10,0	9,0
$f_{m,90,k}$	10,5	12,2	13,3	14,6	16,0	8,0	8,7	9,4	10,1	10,9	11,6	12,3	13,0w
$f_{c,0,k}$	22,0	19,0	17,0	14,0	11,5	21,0	19,7	18,4	17,1	15,9	14,6	13,3	12,0
$f_{c,90,k}$	13,0	15,0	16,5	18,0	20,0	11,0	12,6	14,1	15,7	17,3	18,9	20,4	22,0
$f_{t,0,k}$	19,0	15,6	13,5	10,5	7,5	13,5	12	11,8	10,9	10,1	9,2	8,4	7,5
$f_{t,30,k}$	7,5	6,5	5,5	5,0	4,0	5,5	5,2	4,9	4,6	4,4	4,1	3,8	3,5
$f_{t,45,k}$	5,5	4,5	3,5	3,0	2,0	4,0	3,8	3,6	3,4	3,1	2,9	2,7	2,5
$f_{t,60,k}$	6,5	5,5	4,5	4,0	3,0	4,0	4,2	4,4	4,6	4,9	5,1	5,3	5,5
$f_{t,90,k}$	7,5	9,0	10,0	11,0	12,0	9,0	9,1	9,3	9,4	9,6	9,7	9,9	10,0
$f_{v,0,k}$	4,5	4,2	4,0	3,8	3,5	4,5	4,2	3,9	3,6	3,4	3,1	2,8	2,5
$f_{v,90,k}$	3,5	3,5	3,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
$E_{m,0,mean}$	6.800	5.840	5.200	4.400	3.600	6.000	5.600	5.300	4.900	4.600	4.200	3.900	3.500
$E_{m,90,mean}$	3.200	4.160	4.800	5.600	6.400	3.500	3.900	4.400	4.800	5.200	5.600	6.100	6.500
G_{mean}	600	600	600	600	600	700	700	700	700	700	700	700	700

Span tables

Maximum permissible spans in metres in load case H

Requirements:

- Even load
- Allowance must be made for the dead load of the panel
- Equal span widths
- fperm. = l/200
- Loading on a span basis is not taken into account
- Creep deformations and dead loads are not taken into account in the tables
- Values only apply to **K1 multi**plan pre-measurement. Before realization structural dimensioning must be carried out.

Single span beam

Load q [kN/m²]	Outer layer = 6.7 mm Panel thickness					Outer layer = 13 mm Panel thickness							
	20 mm	26 mm	30 mm	35 mm	40 mm	40 mm	45 mm	50 mm	55 mm	60 mm	65 mm	70 mm	75 mm
1	1.39	1.77	2.0	2.20	2.39	2.64	2.94	3.23	3.51	3.79	4.05	4.31	4.55
1.5	1.21	1.54	1.74	1.99	2.16	2.31	2.57	2.82	3.07	3.31	3.54	3.76	3.98
2	1.10	1.40	1.58	1.81	2.01	2.10	2.33	2.56	2.79	3.01	3.22	3.42	3.62
2.5	1.02	1.30	1.47	1.68	1.87	1.95	2.17	2.38	2.59	2.79	2.99	3.18	3.36
3	0.96	1.22	1.38	1.58	1.76	1.83	2.04	2.24	2.44	2.63	2.81	2.99	3.16
3.5	0.91	1.16	1.31	1.50	1.67	1.74	1.94	2.13	2.31	2.49	2.67	2.84	3.00
4	0.87	1.11	1.26	1.43	1.60	1.66	1.85	2.04	2.21	2.39	2.55	2.71	2.87
4.5	0.84	1.07	1.21	1.38	1.54	1.60	1.78	1.96	2.13	2.29	2.46	2.61	2.76
5	0.81	1.03	1.17	1.33	1.49	1.54	1.72	1.89	2.05	2.21	2.37	2.52	2.66

Double span beam

Load q [kN/m²]	Outer layer = 6.7 mm Panel thickness					Outer layer = 13 mm Panel thickness							
	20 mm	26 mm	30 mm	35 mm	40 mm	40 mm	45 mm	50 mm	55 mm	60 mm	65 mm	70 mm	75 mm
1	1.86	2.27	2.49	2.75	2.98	2.98	3.94	4.33	4.71	5.08	5.44	5.78	6.11
1.5	1.62	2.05	2.25	2.48	2.69	2.69	3.44	3.78	4.12	4.44	4.75	5.05	5.34
2	1.48	1.88	2.09	2.31	2.51	2.51	3.13	3.44	3.74	4.03	4.31	4.59	4.85
2.5	1.37	1.75	1.97	2.18	2.37	2.37	2.91	3.19	3.47	3.74	4.01	4.26	4.50
3	1.29	1.64	1.86	2.09	2.27	2.27	2.73	3.00	3.27	3.52	3.77	4.01	4.23
3.5	1.22	1.56	1.76	2.01	2.18	2.18	2.60	2.85	3.10	3.35	3.58	3.81	4.02
4	1.17	1.49	1.69	1.92	2.11	2.11	2.48	2.73	2.97	3.20	3.42	3.64	3.85
4.5	1.13	1.43	1.62	1.85	2.05	2.05	2.39	2.62	2.85	3.08	3.29	3.50	3.70
5	1.09	1.39	1.57	1.79	1.99	1.99	2.31	2.53	2.76	2.97	3.18	3.38	3.57

Triple span beam

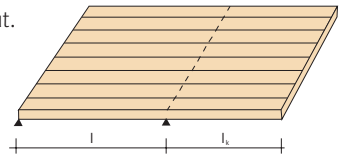
Load q [kN/m²]	Outer layer = 6.7 mm Panel thickness					Outer layer = 13 mm Panel thickness							
	20 mm	26 mm	30 mm	35 mm	40 mm	40 mm	45 mm	50 mm	55 mm	60 mm	65 mm	70 mm	75 mm
1	1.72	2.14	2.35	2.59	2.81	2.81	3.65	4.01	4.36	4.70	5.03	5.35	5.66
1.5	1.50	1.92	2.12	2.34	2.54	2.54	3.19	3.50	3.81	4.11	4.40	4.67	4.94
2	1.37	1.74	1.97	2.18	2.37	2.37	2.90	3.18	3.46	3.73	3.99	4.25	4.49
2.5	1.27	1.62	1.83	2.06	2.24	2.24	2.69	2.96	3.21	3.46	3.71	3.94	4.17
3	1.19	1.52	1.72	1.96	2.14	2.14	2.53	2.78	3.03	3.26	3.49	3.71	3.92
3.5	1.13	1.44	1.63	1.86	2.06	2.06	2.40	2.64	2.87	3.10	3.31	3.52	3.72
4	1.08	1.38	1.56	1.78	1.99	1.99	2.30	2.53	2.75	2.96	3.17	3.37	3.56
4.5	1.04	1.33	1.50	1.71	1.91	1.91	2.21	2.43	2.64	2.85	3.05	3.24	3.43
5	1.01	1.28	1.45	1.65	1.84	1.84	2.14	2.35	2.55	2.75	2.94	3.13	3.31

These tables must be used for pre-dimensioning only. An accurate engineering analysis must be carried out prior to execution in any case.

Maximum permissible spans in metres (pre-dimensioning in load case H)

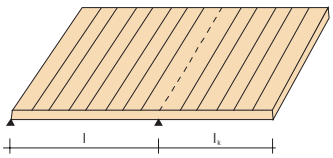
Requirements:

- Even load
- Allowance must be made for the dead load of the panel
- Equal span widths
- fperm. = l/200 (field centre)
- fperm. = lk/100 (cantilever)
- Assumption l = 1m
- Loading on a span basis is not taken into account
- Creep deformations and dead loads are not taken into account in the tables
- Values only apply to **K1 multi**plan pre-measurement. Before realization structural dimensioning must be carried out.



Single span member with cantilever
Outer layer at right angle to support

Load q [kN/m²]	Outer layer = 6.7 mm Panel thickness					Outer layer = 13 mm Panel thickness							
	20 mm	26 mm	30 mm	35 mm	40 mm	40 mm	45 mm	50 mm	55 mm	60 mm	65 mm	70 mm	75 mm
1	0.67	0.83	0.94	1.08	1.21	1.27	1.43	1.59	1.74	1.90	2.05	2.19	2.34
1.5	0.60	0.73	0.82	0.93	1.05	1.09	1.23	1.36	1.50	1.63	1.76	1.89	2.01
2	0.57	0.67	0.75	0.85	0.95	0.99	1.11	1.23	1.35	1.46	1.58	1.69	1.80
2.5	0.54	0.63	0.70	0.79	0.88	0.91	1.02	1.13	1.24	1.35	1.45	1.56	1.66
3	0.53	0.61	0.67	0.74	0.83	0.86	0.96	1.06	1.16	1.26	1.36	1.45	1.55
3.5	0.52	0.59	0.64	0.71	0.79	0.82	0.91	1.00	1.10	1.19	1.28	1.37	1.46
4	0.51	0.57	0.62	0.69	0.75	0.78	0.87	0.96	1.04	1.13	1.22	1.31	1.39
4.5	0.50	0.56	0.60	0.66	0.73	0.75	0.83	0.92	1.00	1.09	1.17	1.25	1.33
5	0.49	0.55	0.59	0.65	0.71	0.73	0.81	0.89	0.96	1.04	1.12	1.20	1.28



Single span member with cantilever
Outer layer parallel to support

Load q [kN/m²]	Outer layer = 6.7 mm Panel thickness					Outer layer = 13 mm Panel thickness							
	20 mm	26 mm	30 mm	35 mm	40 mm	40 mm	45 mm	50 mm	55 mm	60 mm	65 mm	70 mm	75 mm
1	1)	0.54	0.62	0.75	0.91	0.59	0.71	0.85	1.01	1.19	1.37	1.56	1.76
1.5	1)	0.51	0.57	0.67	0.80	0.55	0.64	0.75	0.88	1.03	1.18	1.34	1.51
2	1)	0.49	0.54	0.62	0.73	0.52	0.60	0.69	0.80	0.93	1.06	1.21	1.36
2.5	1)	1)	0.52	0.59	0.69	0.51	0.57	0.65	0.75	0.86	0.98	1.11	1.25
3	1)	1)	0.51	0.57	0.65	0.49	0.55	0.62	0.71	0.81	0.92	1.04	1.17
3.5	1)	1)	0.50	0.55	0.63	0.48	0.53	0.60	0.68	0.77	0.87	0.99	1.11
4	1)	1)	0.49	0.54	0.61	1)	0.52	0.58	0.65	0.74	0.84	0.94	1.05
4.5	1)	1)	1)	0.53	0.59	1)	0.51	0.57	0.64	0.71	0.80	0.90	1.01
5	1)	1)	1)	0.52	0.58	1)	0.51	0.56	0.62	0.69	0.78	0.87	0.97

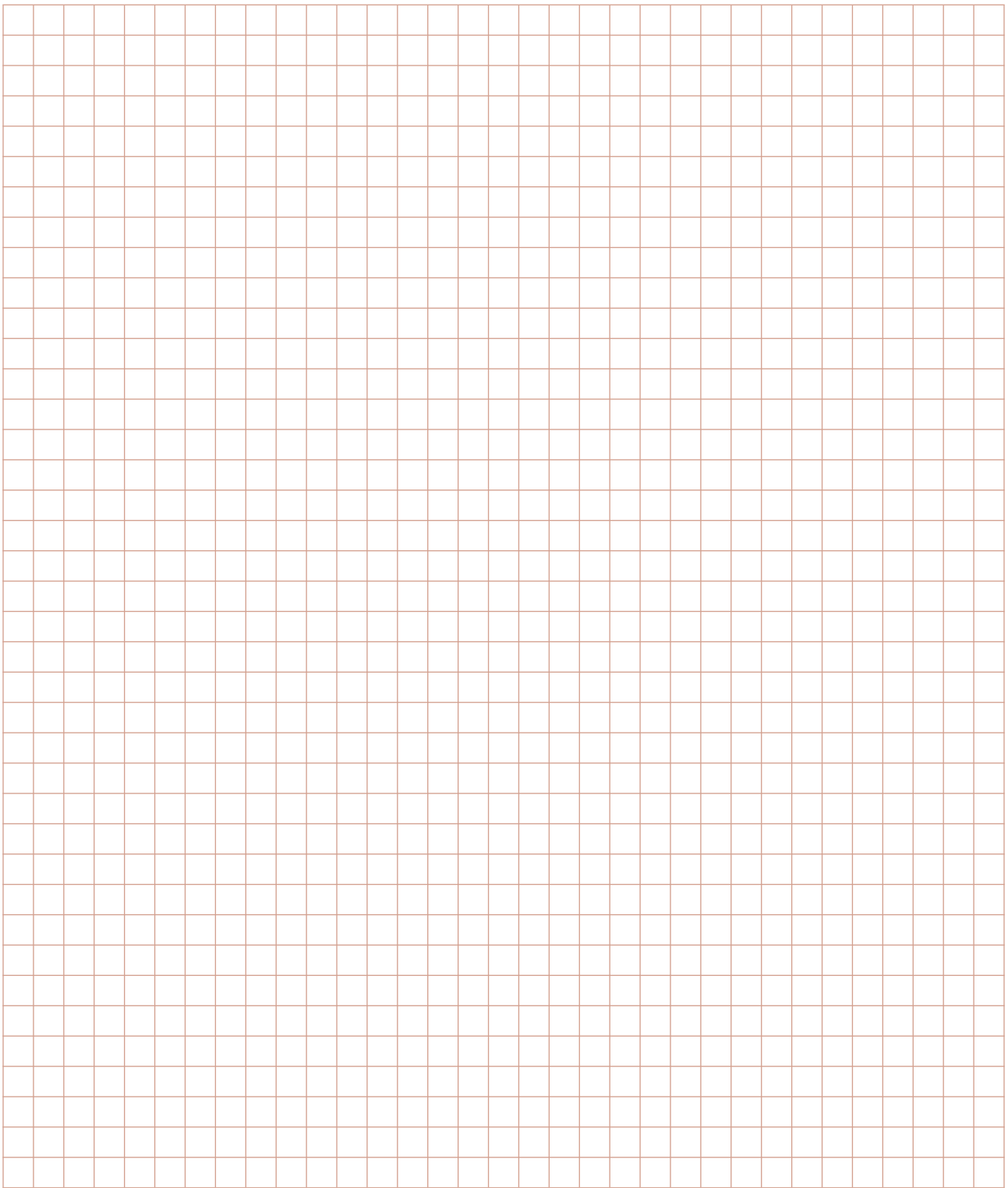
These tables must be used for pre-dimensioning. An accurate engineering analysis must be carried out prior to execution in any case.
1) The deflection in the internal field (l) is exceeded.

Pre-dimensioning in load case H according to DIN 1055 old

Main loads include constant long-term loads, i.e. own load and significant, regularly occurring pay loads. Pre-dimensioning with a global safety coefficient for material strength «old safety concept» i.e. comparison of exist. sigma < admiss. sigma

Notes

Notes



Dear customer, thank you for your interest in our products. Please note that this document is meant for promotional purposes only and has no legal value. Therefore the information provided is only indicative. It might contain typing errors and other mistakes. All information is carefully researched, but we cannot assume any liability for the correctness and completeness of the stated values and data. Any legal claims derived from the use of this information are therefore excluded. The service content owed by us is determined exclusively by a written offer prepared by us for you and our written order confirmation in this respect. This sales brochure and our other sales documents do not constitute offers in the legal sense. We also recommend that you consult our staff during the planning of your projects. They will be happy to assist you on a non-binding basis. Any reproduction of this work, even in part, is only permitted with the express permission in writing by the Mayr-Melnhof Holz Group.

All offers, deliveries and agreements are carried out in accordance with our general terms and conditions, available at www.mm-holz.com.

Our sites

Sweden

Bergkvist Siljan Insjön
saw mill

Bergkvist Siljan Blyberg
saw mill

Bergkvist Siljan Mora
saw mill

Bergkvist Siljan Skog
round timber procurement

Mayr-Melnhof Holz Wismar
second transformation

Germany

The Czech Republic

Austria

Mayr-Melnhof Holz Paskov
saw mill, pellets production

Mayr-Melnhof Holz Olsberg
second transformation

Mayr-Melnhof Holz Reuthe
second transformation,
pellets production

KAUFMANN BAUSYSTEME

Mayr-Melnhof Holz Gaishorn am See
second transformation

MMK

Mayr-Melnhof Holz Leoben
saw mill, pellets production,
second transformation

Contact details of our second transformation sites:

MAYR MELNHOF HOLZ

Mayr-Melnhof Holz Gaishorn GmbH
Nr. 182 · 8783 Gaishorn am See · Austria
T +43 3617 2151 0 · gaishorn@mm-holz.com

Mayr-Melnhof Holz Reuthe GmbH
Vorderreuthe 57 · 6870 Reuthe · Austria
T +43 5574 804 0 · reuthe@mm-holz.com

Mayr-Melnhof Holz Wismar GmbH
Am Torney 14 · 23970 Wismar · Germany
T +49 3841 221 0 · wismar@mm-holz.com

Mayr-Melnhof Holz Olsberg GmbH
Industriestraße · 59939 Olsberg · Germany
T +49 2962 806 0 · olsberg@mm-holz.com

www.mm-holz.com

Version 2024/01
Photos: morgenstern.com, koller-fotografie.at, www.walserland.at
ashley-studio.com, MMH Archiv, Paul Ott