

Association of the European Planing Mill Industry

VEH Edition Special

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Quality guidelines for planed profiles.



With the kind support of the

Association of the Austrian Wood Industries

Austrian Chamber of Agriculture



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Foreword

to the quality guidelines for planed profiles

By virtue of the quality label statute of the Association of the European Planing Mill Industry (VEH), the present quality guidelines for planed profiles constitute the main basis for granting the 'Approved Quality' hallmark, in addition to other contractually agreed standards or rules.

The 'Approved Quality' hallmark depicted here is granted by the VEH upon recommendation of the Control Commission of the VEH. This recommendation, in turn, is based on the expert opinion of an accredited control institution, namely Timber Research Austria (Holzforschung Austria).



Both the inspectors of the accredited institution, the Control Commission as well as the planing mill seeking to obtain, or already having obtained, the hallmark are strictly obliged to observe these quality guidelines in the event that they have been contractually agreed. This serves to ensure that buyers of planed goods from a quality-controlled enterprise will have the highest possible guarantee for obtaining products of above-average guaranteed quality. In addition to the quality guidelines, which mainly apply to the quality characteristics of the planed goods themselves, further provisions contained in the VEH quality label statutes for the 'Approved Quality' hallmark are also intended to guarantee quality.

All ordinary members of the VEH who have been granted the hallmark are obliged to observe the quality label statute as well as these quality guidelines. The Control Commission may rescind the right to hold this hallmark, should these provisions be infringed.

The quality guidelines were prepared by experts of the planing mill industry who are also members of the Association, with the cooperation of representatives from Timber Research Austria. They have taken current customer requirements and market conditions into consideration.

The VEH hopes that the publication of the 7th edition of these quality guidelines will lead to greater transparency and clarity and as such be welcomed in general, and in particular by planing mill customers (private buyers as well as the specialised timber trade and professional wood-processing companies).

Association of the European Planing Mill Industry
The Executive Board
Vienna, November 2015

1. General

§1 Scope of application

- (1) Pursuant to the resolution of the General Assembly of the Association, all ordinary members of the VEH shall apply these quality guidelines when producing planed wooden profiles.
- (2) Pursuant to § 4 (1) of the VEH Quality Label Statute, ordinary members shall be entitled to base their production and grading of planed profiles not only on these VEH Quality Guidelines but also on other, generally recognised technical rules (e.g. harmonised standards, product standards). The following provisions refer exclusively to VEH grading.
- (3) Each ordinary member shall be entitled to apply to the Quality Commission in writing for amendments to or extensions of these Guidelines or to propose a change or extension.

§2 Profile design and dimensions

- (1) Profile forms and dimensions are essentially freely selected by the manufacturer where not specified and regulated by the standards (e.g. plank flooring in accordance with EN 13990).

- (2) The minimum dimensions and limiting deviations specified by the European product standards must be observed.
- (3) Any specified standard profiles (e.g. in accordance with ÖNORM B 3020, EN 13990) must meet the specifications of the underlying standard.
- (4) All dimensions are to be specified by the manufacturer at the point of production in terms of the reference moisture content. Due to changes in the wood equilibrium moisture content, any changes in timber moisture and the actual dimensions of the finished product can be specified at the time of delivery. Average changes to the thickness and width of planed profiles of +0.25% per 1% moisture increase and -0.25% per 1% moisture decrease can be assumed to apply (shrinkage and swelling for softwood parallel to the grain).
- (5) In the case of groove and tongue profiles, the minimum tongue length must be $\geq 5\%$ the total width of the board. The groove depth should be $\geq 1\text{mm}$ of the associated tongue length.
- (6) Planed profiles can be finger jointed. The performance requirements and specifications of producing finger joints are not subject to the VEH quality guidelines.
- (7) The number and design of finger joints (e.g. adhesive used, geometry of the joint) for planed profiles should be agreed on an individual basis with the customer.

- (8) Planed profiles may include relief grooves on the reverse. The manufacturer is free to decide on the number, size and shape of any such relief grooves.

§3 Surface quality and subsequent treatments

- (1) ÖNORM B3020
Moulded board: min. 3-sided planed board (visible surfaces) where the reverse needs to be consistently streaked with a planing knife.
- (2) A cleanly planed surface is created when the length of the plane marks on the visible surface does not exceed 2 mm.
- (3) The following characteristics caused by working and visible on the planed visible surface shall be tolerated:
 - a) rough spots in the area of knots, up to the size of the knot itself
 - b) for some species of timber, structurally-caused rough cross-grain areas
 - c) occasional burn marks.

The aforementioned characteristics will be tolerated only insofar as they do not diminish the overall impression of neat working.

- (4) Any subsequent mechanical treatments to the planed profiles (sanding, brushing, chopping) and their specifications can be decided on an individual basis with the customer but are not covered by the VEH quality guidelines.

- (5) When using surface coatings, the planed profiles must meet the specifications of the harmonised standards (EN 14915, EN 14342). Records must be kept during the course of the self-monitoring process and the following information must be included:
 - Order number
 - Details of the minimum quantity applied (l/m^2 or g/m^2 or wet film thickness)
 - Production date
 - Product used
 - Details of container (batch number)

§4 Tally

- (1) The customers of the planing mill shall be charged according to the tongue dimensions of the goods; for planed moulded boards which are not defined in ÖNORM B 3020, the above provisions shall apply mutatis mutandis. Any other basis for billing must be agreed in writing between the customer and the supplier.

§5 Labelling

- (1) The labelling should be based on the specifications of the harmonised standards.
- (2) If certain planed profiles are not covered by a harmonised standard (e.g. terrace flooring), the following details should be specified in any written correspondence (delivery slip) and on the packaging unit:
 - Designation or name of product
 - Designation and shape of profile
 - Thickness / width / length
 - Grading class (VEH A, VEH B, VEH AB, VEH Top)
 - Moisture content
 - Abbreviation or name of wood variety (based on ÖNORM EN 13556)
 - Reference to the corresponding ÖNORM (e.g. ÖNORM B 3020)
 - Number of elements (only in the case of strip flooring made of solid softwood)

Whenever applicable, further information should be supplied with regard to:

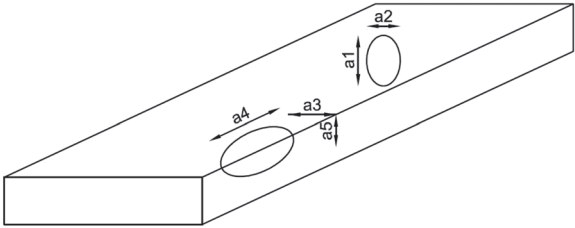
- Surface treatment
- Finger-jointing

§6 Grading according to timber quality characteristics

- (1) Planed profiles are divided into two quality categories and labelled as 'VEH A' or 'VEH B'. Planed profiles which do not correspond to these grading specifications are identified as class C (no VEH label).
- (2) Mixed grading is permitted. In any subsequent inspection, at least 60 pieces of every 100 pieces in a row have to conform to grade VEH A (for VEH Top) and at least 30 pieces of every 100 pieces in a row have to conform to grade A (for VEH AB); any other cases must be assigned to grade VEH B. In this instance, inspection of fewer than 100 pieces shall not be allowed.
- (3) VEH grade designation:

Designation	Proportion of grade	
	A	B
VEH A	100%	–
VEH Top	60%	40%
VEH AB	30%	70%
VEH B	–	100%

- (4) In order to allow for unavoidable mistakes in grading, these grading rules shall apply only to 95% of each batch, i.e. a maximum of 5% of the overall number of pieces may be of a lower quality.
- (5) For all terms used in the grading specifications, the user is referred to the definitions provided in the Annex.
- (6) The basis for the quality assessment of grading characteristics shall be the visible surface, taking into consideration the purpose for which it is to be used.
- (7) Measurement of these characteristics must take place in accordance with EN 1310. In the case of knots, the general procedure in accordance with EN 1310:1997, 4.1.1 applies.



Knot: Average visible diameter = $\frac{a_1 + a_2}{2}$

Edge knot: Broad side:
Average visible diameter = $\frac{a_3 + a_5}{2}$

Narrow side:
Average visible diameter = $\frac{a_4 + a_5}{2}$

2. Planed profiles for indoor areas

2.1. Wall and ceiling profiles

§7 Timber moisture

- (1) The recommended timber moisture level for wall and ceiling profiles in indoor areas is $12\% \pm 2\%$.
- (2) The timber moisture level at the time of production should be declared on every transport unit or delivery slip.
- (3) In the case of special applications, special timber moisture levels can be agreed with the customer and labelled accordingly (e.g. profile E in accordance with ÖNORM B 3020 – timber moisture 8% – 10%)

§8 Standards/recommendations

- (1) Harmonised standard: EN 14915
- (2) Produktnormen:
EN 14519
EN 15146 (sold softwood with/without tongue & groove)
EN 14951 (hardwood)

The last valid version of the relevant standards is applicable.

- (3) Recommendation: VEH Bestseller: 1st edition, 2010

2.2. Flooring – solid wooden floorboards

§9 Timber moisture

- (1) The recommended timber moisture level for solid wooden floorboards in indoor areas is $9\% \pm 2\%$.
- (2) The timber moisture level at the time of production should be declared on every transport unit or delivery slip.
- (3) In the case of special applications, special timber moisture levels can be agreed with the customer and labelled accordingly (e.g. flooring – timber moisture 8% – 10%)

§10 Standards/recommendations

- (1) Harmonised standard: EN 14342
- (2) Product standards:
EN 13990 (solid softwood floorboards)
EN 13629 (solid hardwood floorboards)

The last valid version of the relevant standards is applicable.

- (3) Recommendation: VEH Bestseller: 1st edition, 2010

3. *Planned profiles for outdoor areas*

3.1. Façade profiles

§11 Timber moisture

- (1) The recommended timber moisture level for façade profiles in outdoor areas is $15\% \pm 3\%$.
- (2) The timber moisture level at the time of production should be declared on every transport unit or delivery slip.
- (3) In the case of special applications, special timber moisture levels can be agreed with the customer and labelled accordingly (e.g. profile C - timber moisture $17\% \pm 2\%$).

§12 Standards/recommendations

- (1) Harmonised standard: EN 14915
- (2) Product standards:
EN 14519
EN 15146 (solid softwood with/without tongue & groove)
EN 14951 (hardwood)
The last valid version of the relevant standards is applicable.
- (3) Recommendation: VEH Holzfassaden: 1st edition, 2014

3.2. Terrace decking

§13 Timber moisture

- (1) The recommended timber moisture level for thermally modified or non-treated terrace decking is $15\% \pm 3\%$.
- (2) The timber moisture level at the time of production should be declared on every transport unit or delivery slip.
- (3) In the case of special applications, special timber moisture levels can be agreed with the customer and labelled accordingly (e.g. terrace pine timber moisture $17\% \pm 2\%$).

§14 Standards/recommendations

- (1) There are no national or European regulations governing the production and requirements of outdoor terrace decking.
- (2) Recommendation: VEH Holzterrassen: 1st edition, 2013

4. Grading specifications

4.1. Planed profiles for indoor areas

§15 Grading specifications for planed profiles in indoor areas (wall/ceiling/flooring)

- (1) The grading specifications apply to the following softwood varieties: spruce, fir, pine, larch, Douglas fir, abbreviated as follows:

Sp.....spruce

Fifir

Pipine

La.....larch

DoDouglas fir

- (2) For hardwood planed profiles, the following standards apply mutatis mutandis:

EN 14951

EN 13629

- (3) Origin: European, Nordic/Siberian

VEH A**VEH B****Knots****✓ permitted**

Completely intergrown healthy knots of any number.

Sp/Fi: Size max. 25% of board or moulded board width. Intergrowing knots up to max. 15 mm diameter.

Pi/Do: Size max. 10% of board width +30 mm. In 50% of goods, partly intergrown knots up to max. 10% of board width +30 mm.

La: Size max. 25% of board width. Partly intergrown, bark-surrounded and dead knots, size up to 20% of moulded board width.

Black pin knots up to max. 5 mm diameter (incl. in groups).

⊘ not permitted

Loose and fallen-out knots; in max. 15% of goods, these may be plugged with an end-grain dowel made from the same species of wood (from a branch). For one metre of length, an end-grain dowel is permitted with any distribution along the board allowed.

✓ permitted

Completely intergrown knots, partly intergrown knots, bark-surrounded knots, splay knots and dead (not intergrown) knots,

size max. 10% of board or moulded board width +50 mm.

⊘ not permitted

Loose and fallen-out knots; these may be plugged with an end-grain dowel made from the same species of wood (from a branch).

VEH A	VEH B
Chipped off parts (incorrectly machined areas)	
<p>✓ permitted</p> <p>In max. 15% of the goods, so long as the overlap of two profiled boards is not impaired. With edge knots, size of the chipped-off area comparable to a knot.</p> <p>Sp/Fi: Max. 10 mm diameter Pi/La/Do: Max. 15 mm diameter</p>	<p>✓ permitted</p> <p>Size of the chipped-off parts max. 40% of the knot area. Overlap of two profiled boards must not be impaired in the case of edge knots.</p>
Compression wood (boxwood)	
<p>✓ permitted</p> <p>In max. 15% of the goods, so long as overall impression is not impaired.</p>	<p>✓ permitted</p>
Distortion	
<p>✓ permitted</p> <p>Bowed and twisted boards, as long as expert laying is still ensured.</p>	<p>✓ permitted</p> <p>Bowed and twisted boards, as long as expert laying is still ensured.</p>

VEH A**VEH B****Resin pockets (continuation)****✓ permitted**

In 15% of the goods, size up to 5 mm x 50 mm or 250 mm². Up to 1 per running metre; any distribution along the length of the board allowed. The following resin pockets are not taken into account:

Sp/Fi: 2 mm x 20 mm

Pi/La/Do: 3 mm x 30 mm

✓ permitted

Size up to 10 mm x 100 mm or corresponding size in mm². Up to 3 pcs per running metre; any distribution along the length of the board allowed. Resin pockets up to 3 mm x 30 mm are not taken into consideration.

Fissures (cracks)**✓ permitted**

In 15% of the goods, no continuous surface cracks (hair cracks) on the visible surface. Traversing end cracks must not be longer than 30 mm. Continuous end cracks not longer than the board width with:

Sp/Fi/Pi/Do: Max. 20% of goods.

La: Max. 40% of goods

⊘ not permitted

Ring shakes

✓ permitted

Interrupted surface cracks on the visible surface. Traversing end cracks, not longer than 1.5 times the width of the piece.

⊘ not permitted

Ring shakes

VEH A	VEH B
Pith	
<p>✓ permitted Sp/Fi: In max. 15% of goods, on the visible surface up to max. 15% of board length and 4 mm width. Pi/Do: In max. 25% of goods, on the visible surface up to max. 30% of board length and 5 mm width. La: In max. 15% of goods, on the visible surface up to max. 30% of board length and 5 mm width.</p>	<p>✓ permitted</p>
Colour	
<p>✓ permitted Discolouring on the reverse of the board. Pi/Do: Resinous areas around the knots. La: Slight colour variation (e.g. water marks).</p> <p>⊘ not permitted Discolouring on the visible side. Pi/Do: Other resinous marks on the visible side.</p>	<p>✓ permitted Slight discolouring on the visible surface (e.g. red and blue stains). Discolouring on the back of the board. Pi/Do: Resinous boards La: Slight colour variation due to water marks permitted.</p>

VEH A	VEH B
Fungal attack	
<p>⊘ not permitted Exception see 'Colour' point, p.17.</p>	<p>✓ permitted Hard red streak, size see 'Colour' point, p.17.</p> <p>⊘ not permitted Other fungal decay, exception see point 'Colour', p.17.</p>
Insect attack	
<p>⊘ not permitted</p>	<p>⊘ not permitted</p>
Wane	
<p>✓ permitted On the reverse side, if tongue and groove are not affected.</p>	<p>✓ permitted On the reverse of the board if tongue and groove are not affected on 3/4 of the length.</p>
Bark pockets	
<p>✓ permitted In max. 15% of goods, size up to 15 mm diameter or corresponding size in mm².</p>	<p>✓ permitted Knot sized or corresponding size in mm².</p>
Sapwood	
<p>✓ permitted In max. 15% of goods, sapwood on up to 20% of visible area.</p>	<p>✓ permitted</p>

4.2. Planed profiles for outdoor areas

§16 Grading specifications for planed profiles in outdoor areas according to VEH quality regulations 2015 (terrace/façade)

- (1) The grading specifications apply to all kinds of softwood varieties and in particular to spruce, fir, pine, larch, Douglas fir, abbreviated as follows:

Sp.....spruce

Fi.....fir

Pi.....pine

La.....larch

Do.....Douglas fir

- (2) For hardwood planed profiles, the following standards apply mutatis mutandis:

EN 14915

EN 13629

- (3) Origin: European and Nordic/Siberian

VEH A**VEH B****Knots****✓ permitted**

Completely intergrown healthy knots of any number
Size max. 25% of board or moulded board width.

Partly intergrown, bark-surrounded and dead knots up to 1 per running metre; any distribution along the length of the board allowed.

Size up to 20% of board width. Black pin knots up to a diameter of 5 mm are permitted and are not taken into account. In the case of boards made from rift-sawn or semi-rift sawn wood, the aforementioned knot sizes apply +20 mm.

⊘ not permitted

Loose and fallen-out knots.
End-grain dowel not permitted.

✓ permitted

Completely intergrown knots, partly intergrown knots, bark-surrounded knots of any number. Splay knots and dead (not intergrown) knots up to 1 per running metre; any distribution along the length of the board allowed. Black pin knots of up to 5 mm diameter are permitted and are not taken into account.

$b > 100$ mm: knot size max. 10% of board or moulded board width +40 mm.
 $b < 100$ mm: knot size max. 60% of board or moulded board width.

⊘ not permitted

Loose and fallen-out knots.
End-grain dowel not permitted.

Chipped-off parts and incorrectly machined areas**✓ permitted**

In max. 15% of goods chipped-off parts or fallen-out knots up to max. 15 mm diameter.

✓ permitted

Chipped-off parts or fallen out knots up to max. 30 mm diameter.

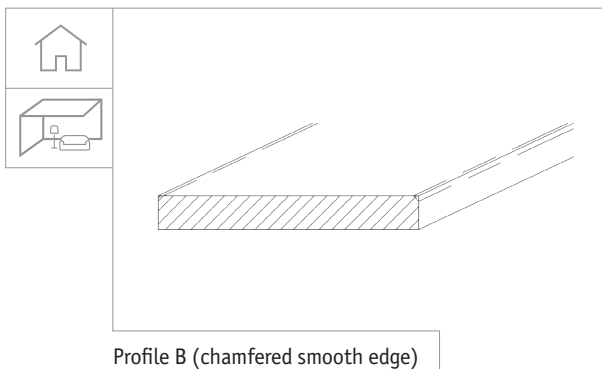
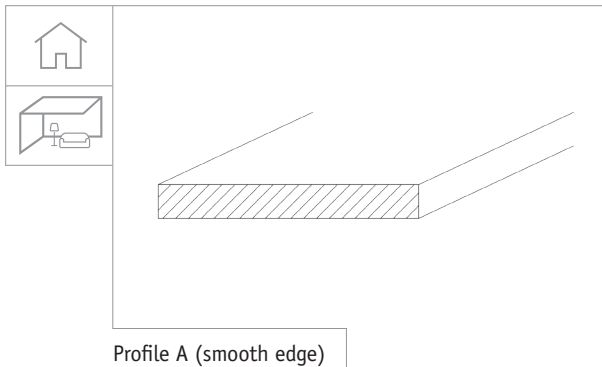
VEH A	VEH B
Compression wood (boxwood)	
<p>✓ permitted So long as overall impression is not impaired.</p>	<p>✓ permitted</p>
Distortion	
<p>✓ permitted Bowed and twisted boards, as long as expert laying is still ensured</p>	<p>✓ permitted Bowed and twisted boards, as long as expert laying is still ensured</p>
Resin pockets	
<p>✓ permitted Size up to 3 mm x 40 mm or area of 120 mm². Number: up to 1 per running metre, any distribution along the length of the board allowed.</p> <p>Resin pockets up to 1 mm x 20 mm are not taken into account.</p>	<p>✓ permitted Size up to 5 mm x 60 mm or area of 300 mm². Number: up to 3 per running metre, any distribution along the length of the board allowed.</p> <p>Resin pockets up to 3 mm x 40 mm are not taken into account.</p>

VEH A	VEH B
Fissures (cracks)	
<p>✓ permitted Interrupted surface cracks on the visible surface (hair cracks). In max. 20% of goods, traversing end cracks not longer than the board width.</p> <p>⊘ not permitted Ring shakes</p>	<p>✓ permitted Interrupted surface cracks on the visible surface. Traversing end cracks, not longer than 1.5 times the width of the piece.</p> <p>⊘ not permitted Ring shakes</p>
Pith	
<p>✓ permitted In max. 15% of the goods, on the visible surface up to a maximum of 30% of board length and 5 mm width.</p>	<p>✓ permitted</p>
Colour	
<p>✓ permitted Discolouring on the back of the board. Slight discolouring on the visible side in max. 30% of goods. Sapwood is not classed as discolouration.</p>	<p>✓ permitted Slight discolouring on the visible surface (e.g. red and blue stains). Discolouring on the back of the board. With Siberian larch: slight colour differences (e.g. water marks). Sapwood is not classed as discolouration.</p>

VEH A	VEH B
Sapwood	
<p>✓ permitted Visible side virtually sapwood-free. On reverse up to 50% of board width in up to max. 30% of goods.</p>	<p>✓ permitted On the reverse, the heartwood must extend at least across the entire length of the board. Max. 30% of visible surface in max. 50% of goods.</p>
Fungal attack	
<p>⊘ not permitted Exceptions, see point 'Colour', p.22.</p>	<p>⊘ not permitted Exceptions, see point 'Colour', p.22.</p>
Insect attack	
<p>⊘ not permitted</p>	<p>⊘ not permitted</p>
Wane	
<p>✓ permitted On the reverse, as long as expert laying is still ensured.</p> <p>⊘ not permitted On the visible side.</p>	<p>✓ permitted On the reverse, as long as expert laying is still ensured.</p> <p>⊘ not permitted On the visible side.</p>
Bark pockets	
<p>⊘ not permitted</p>	<p>✓ permitted Knot sized or corresponding size in mm².</p>



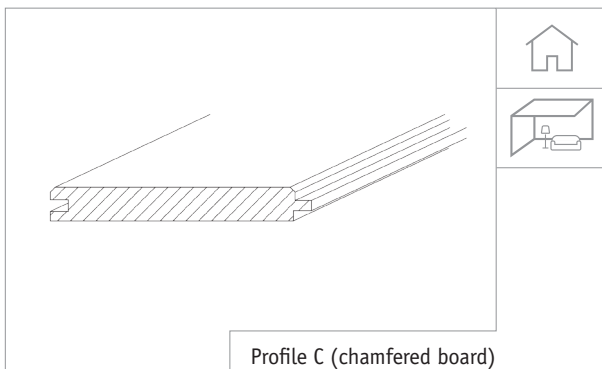
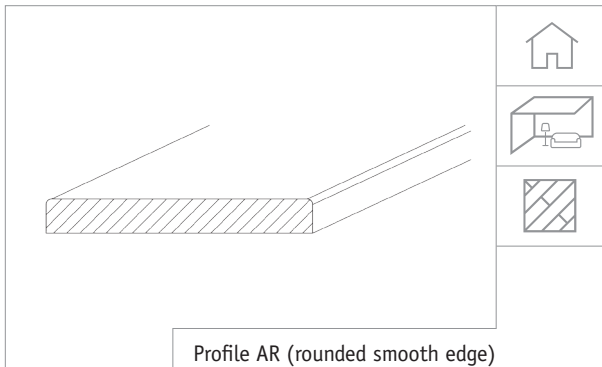
5. Standard profiles and scope of application



Façade profiles (informative)



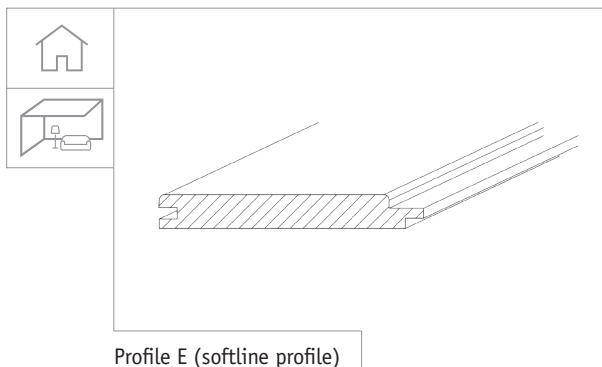
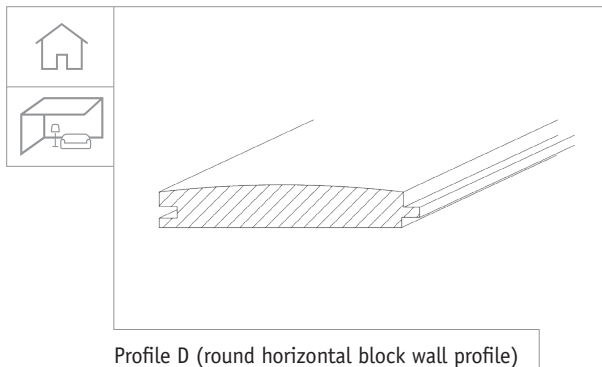
Wall and ceiling profiles for indoor areas (informative)



Solid wooden floorboards (normative)
 Depiction of solid softwood floorboards
 in accordance with EN 13990



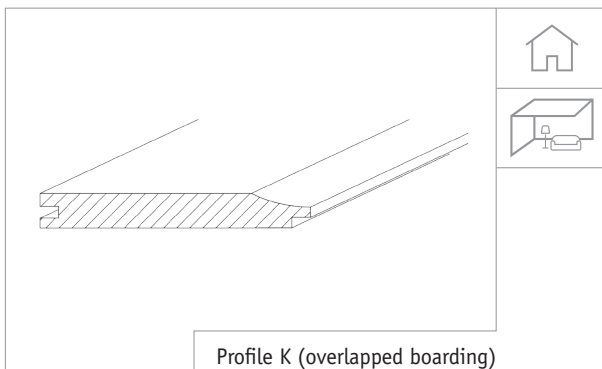
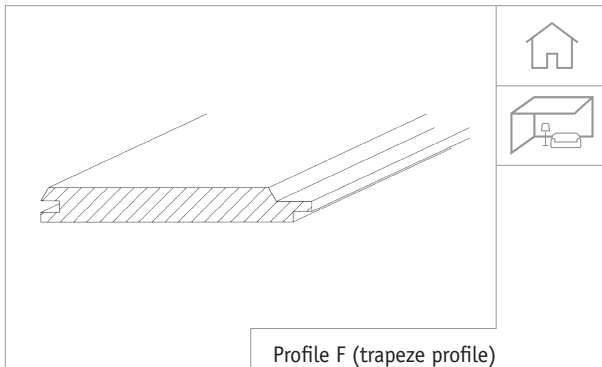
Terrace flooring
 (informative)



Façade profiles (informative)



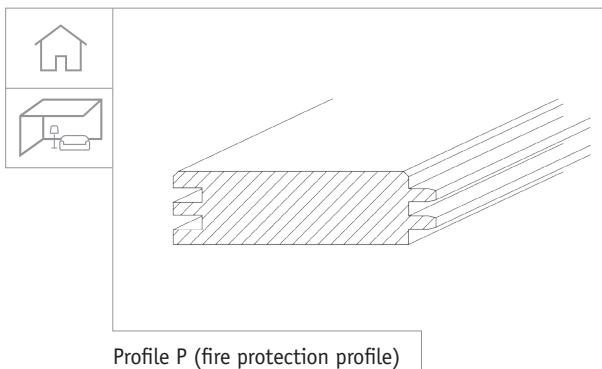
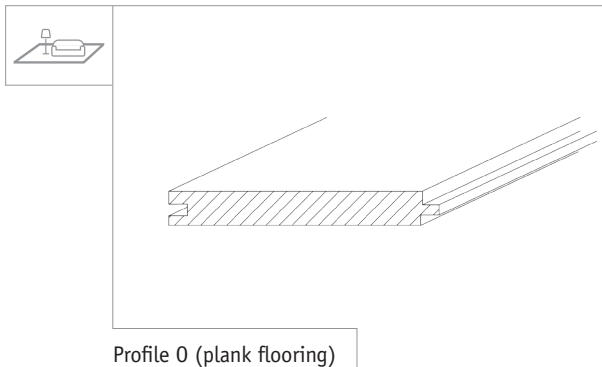
Wall and ceiling profiles for indoor areas (informative)



Solid wooden floorboards (normative)
 Depiction of solid softwood floorboards
 in accordance with EN 13990



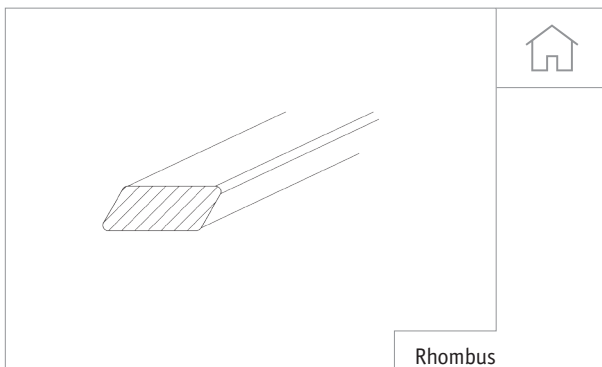
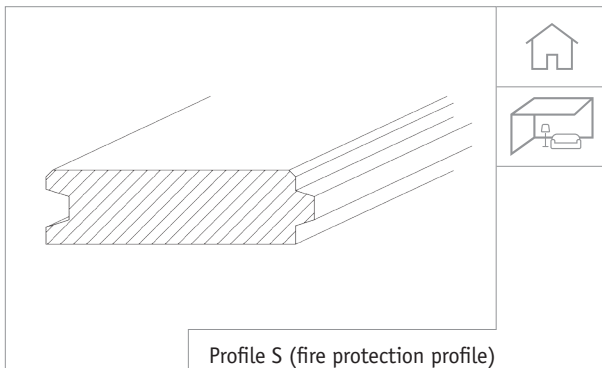
Terrace flooring
 (informative)



Façade profiles (informative)



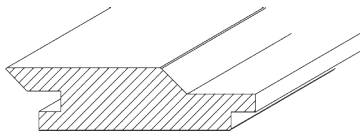
Wall and ceiling profiles for indoor areas (informative)



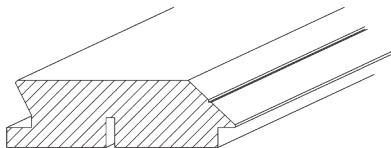
Solid wooden floorboards (normative)
 Depiction of solid softwood floorboards
 in accordance with EN 13990



Terrace flooring
 (informative)



Rhombus with tongue and groove



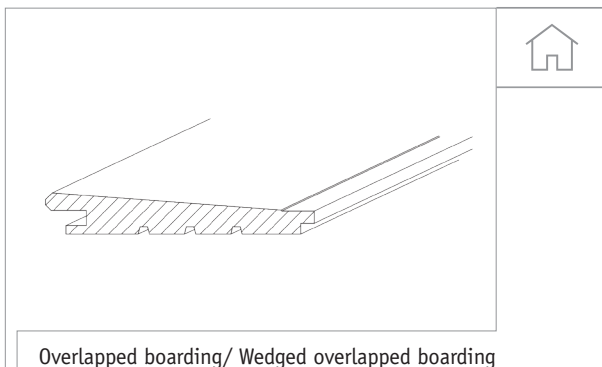
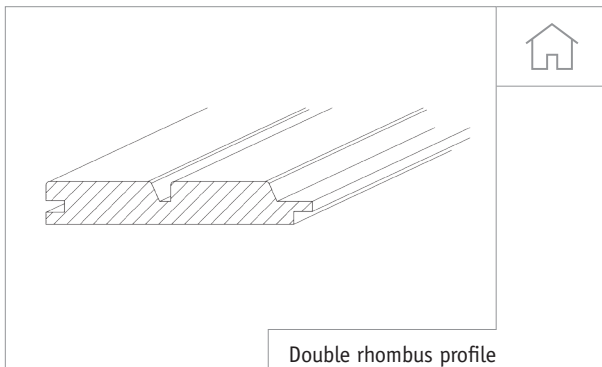
Rhombus with tongue and groove



Façade profiles (informative)



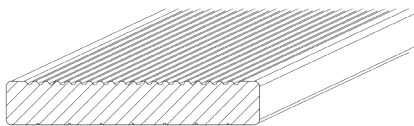
Wall and ceiling profiles for indoor areas (informative)



Solid wooden floorboards (normative)
Depiction of solid softwood floorboards
in accordance with EN 13990



Terrace flooring
(informative)



Ridged terrace profile

6. Annex – Explanation of Terms

Extract from Austrian Timber Trade Usages (ÖHU)

Knots

Pin knots

Round knots with a diameter of up to 0.5 cm.

Not completely intergrown knots (dead knots, fallen out knots, loose knots, black knots)

Knots surrounded by a black ring (on the bark) or which are not completely intergrown with the wood structure on both visible surfaces of the piece; dead knots which have not intergrown with the surrounding wood structure.

Intergrown Knots

Knots which, on at least one surface of the piece, have at least half of their circumference completely intergrown with the surrounding wood structure.

Completely intergrown knots

Knots where the entire circumference has completely intergrown with the surrounding wood structure; in sawn wood, this has to apply to both visible surfaces of the piece.

Splay knots

Splay knots are knots which start approximately in the middle (the pith) and reach the edge or almost to the edge.

Chipped-off parts

Mechanically-caused damage to the surface which cannot be removed by grinding or by a stroke of the plane.

Boxwood (compression wood)

A reddish-brown compression of the wood structure which has formed along the annual rings.

Rot

Decay of wood caused by fungi or other micro-organisms which leads to softening, loss of bulk and strength and frequently to changes in texture and colour.

Brown rot	Decay of wood caused by fungi which leads primarily to the loss of cellulose and hemicellulose. It is characterised by a brown discolouration and, at an advanced stage, by a cube-shaped fracture pattern.
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Hard rot	The initial stage of rot with the wood still being nailable.
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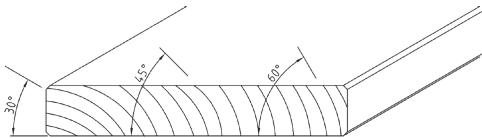
Soft rot	Rot caused by microscopic fungi which attack cellulose and hemicellulose, causing the wood structure to lose its strength considerably.
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Tongue measurement

The width measurement including the tongue, plough or unilateral groove.

Rift-sawn (semi-rift)

Heartwood-separated board with the annual rings positioned at an angle of 60° and min. 30° on the left side of the board. Average gradient of annual rings $\geq 45^\circ$.



Resin pockets

Lenticular inclusions between the annual rings which contain or have contained resin. These are not to be confused with resin ducts (resin canals) which are a completely normal formation of the wood and, therefore, not to be considered a defect.

The length of resin pockets is measured parallel to the axis of the tree and the width at a right angle to the axis.

In the case of sawn wood, resin pockets < 2 mm in width and < 2 cm in length are not considered defects within the meaning of the usage.

Core-free (marrow-free, heartwood-free)

The board is free from pith across its full length and cross-section.

Core-separated (cut-through marrow, heartwood-separated)

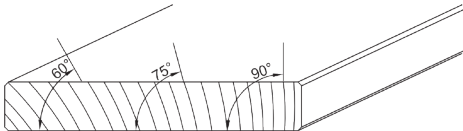
The heartwood passes through the external quarter of the cross-section and can be seen on the surface of the wood (marrow stripe). The heartwood does not necessarily have to pass through the entire length of the wood.

Pith (core, marrow, pith, heart)

The non-woody pith which runs continuously from the root to the treetop and is surrounded by the first annual rings.

Quarter-sawn (rift)

Heartwood-separated board with the annual rings positioned at an angle of 90° (ideally) and min. 60° on the left side of the board. Average gradient of annual rings $\geq 75^\circ$.



Fissures

End split Visible on one end surface and mostly continues on one of the other surfaces.

Through split A split which can be seen on two opposing sides of the piece or, in the case of shakes, shows up twice on a surface.

Specific fissure types

Hair check
(air cracks, sun cracks, dry cracks)

Checks which are caused by tension due to shrinkage in the wood, exclusively on the surface.

Ring crack (ring shakes, heartwood shakes) A separation which extends along the ring of annual growth; in the heartwood area, known as heartwood shakes.

Red streak

The initial stage of a reddish, mostly stripe-like discoloration of the wood caused by fungi.

Blue stain

A bluish discolouration of the sapwood caused by the growth of fungi which in sawn wood cannot be removed by a stroke of the plane.

Discolouration

Discolouration is a deviation from the natural colour of healthy wood without any reduction in strength.

Greying (weathered goods)

Greying is a colouring on the surface of the wood caused by ultraviolet radiation and weathering without any reduction in strength.

7. List of standards

ÖNORM B	3020	Profile shapes for wall and ceiling coverings made of wood
EN	1310	Round and sawn timber – measurement of features
EN	13556	Round and sawn timber – nomenclature of timbers used in Europa
EN	13629	Wood flooring – solid individual and pre-assembled hardwood boards
EN	13990	Wood flooring – solid softwood floor boards
EN	14342	Wood flooring and parquet - characteristics, evaluation of conformity and marking
EN	14519	Solid softwood panelling and cladding - machined profiles with tongue and groove
EN	14915	Solid wood wall and ceiling coverings - characteristics, evaluation of conformity and marking
EN	14951	Solid hardwood panelling and cladding - machined profile elements
EN	15146	Solid softwood panelling and cladding - machined profiles without tongue and groove.

8. Bibliography



VEH Holzfassaden
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VEH Holzterrassen
1st edition, 2013
ISBN 978-3-9502386-7-9



VEH BestSeller
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Ist-Analyse and Absatzchancen
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6th edition, 2007
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2nd edition, 2014
ISBN 978-3-9503367-7-1



proHolz Austria, Fassaden aus Holz
2nd revised edition, 2014
ISBN 978-3-902320-74-2



proHolz Austria, Holzböden im Freien - Planung
und Ausführung aus Holz, modifiziertem Holz
sowie WPC, 1st edition, 2013
ISBN 978-3-902320-99-5



Holzforschung Austria
Holzfassaden optimal ausgeführt
2010



proHolz Austria
Edition: Holz im Garten
1st edition, 2008
ISBN 978-3-902320-61-2



proHolz Holzspektrum, Ansichten,
Beschreibungen und Vergleichswerte
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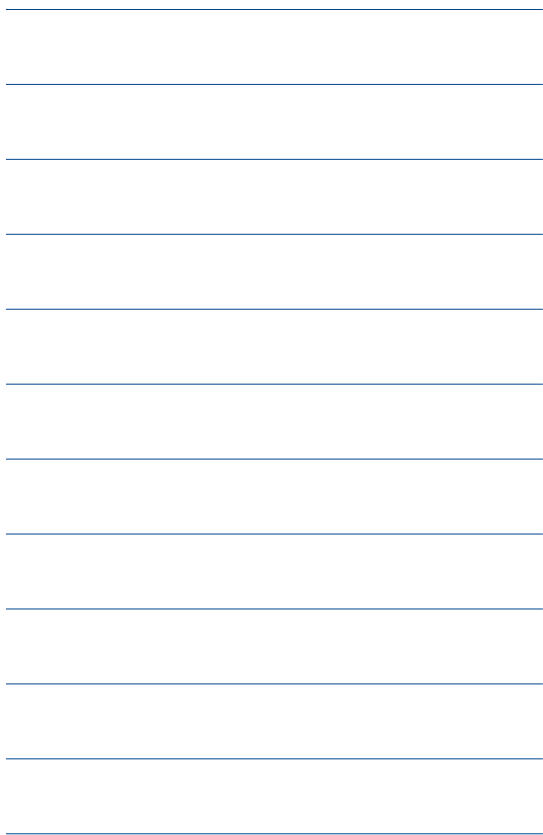
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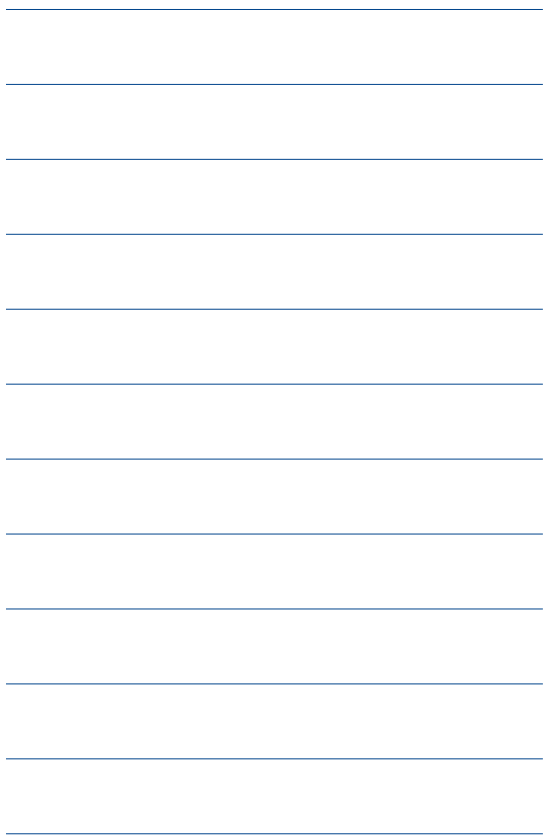
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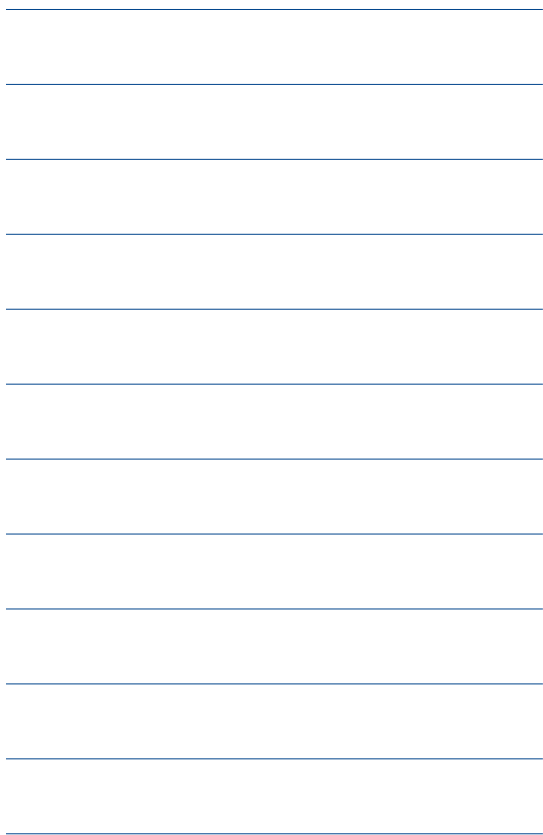
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