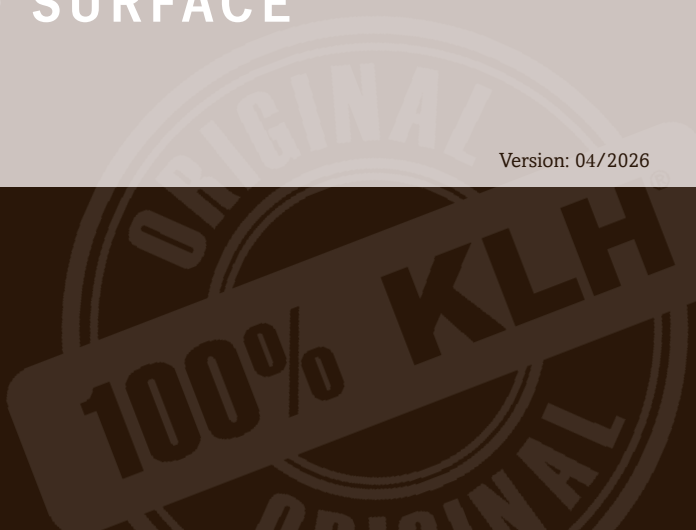
KLH®

MADE FOR BUILDING
BUILT FOR LIVING

KLH® SELECT
PRECIOUS WOOD SURFACE

Version: 04/2026

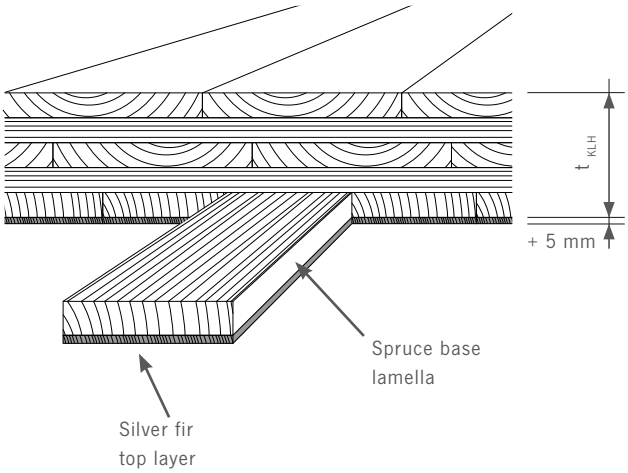


: Paul Ott

PRECIOUS WOOD SURFACES FOR SOPHISTICATED ARCHITECTURE

Visible wooden surfaces not only convey comfort and dynamism, they also allow the architectural concepts of the exterior space to merge with the interior architecture and design. They make rooms appear open, inviting and adaptable when you enter, combining functionality with a beauty, both natural and impressive. Different types of wood increase the architectural possibilities for a high quality of living.

SCHEMATIC REPRESENTATION:



KLH® SELECT SILVER FIR

The KLH® Select Silver Fir surface is now also available for sophisticated architecture and a largely knotless appearance.

The KLH® standard panel types are given an additional non-load-bearing, approx. 5 mm thick, top layer of silver fir on the visible surface. The top layer and the base lamella are glued parallel to the grain. Production is carried out in compliance with all rigidity grading and quality control requirements.

As before, the characteristic values of the KLH® standard panel types are used for structural analysis. The elements must be shown with a thickness increased by 5 mm in the final element design.

Silver fir can be used on one lateral surface of KLH® elements (e.g. for ceiling elements), while the narrow sides and the second lateral surface are made of spruce.

SURFACES IN SILVER FIR

Only locally available raw materials from sustainably managed forests are used. The use of rift-cut/semi-rift-cut wood for the lamella results in greater dimensional stability on the surface with significantly reduced susceptibility to cracking. The approx. 100 mm wide fir lamellae are sorted according to quality, are made knotless or cross-cut according to the surface definition, and finger-jointed length-ways. The result is a precious, finely sanded surface, which facilitates modern, lightweight and elegant timber architecture.

QUALITY DEFINITIONS

KLH® SELECT SILVER FIR (DVQTA)	
Application area	Precious wood surface for visible components in residential buildings, especially suitable for sophisticated architecture and largely knotless appearance
Demands on the surface	Highest demands, ideally flawless and free of knots, balanced wood texture, very balanced, homogeneous appearance with colour tolerances that are typical of fir wood
Production-related references	Panel thickness +5 mm (for one-sided, non-load-bearing top layer of silver fir), single board width approx. 100 mm, single board length approx. 1 – 2 m, finger-jointed
Surface finishing	Finely sanded over the entire surface (one side), surface re-treatment (knothole filling, strips, etc.) permitted
Surface treatment in-plant	Finishing possible on request

MINIMUM REQUIREMENTS

CRITERIA	KLH® SELECT SILVER FIR (DVQTA)
Colour and texture	Very balanced with colour tolerances that are typical of fir wood, generally plain appearance, some coarser growth rings and light to medium ring abnormalities permitted
Knots, tightly intergrown, black	Very occasionally, tightly intergrown pin knots ≤ 15 mm Ø are permitted
Blue stain, browning, red streakiness, loose knots, knot holes, resin pockets, pith, bark ingrowth, wane, compression wood, cut burrows from inactive insect infestation	Not permitted
Wood moisture during production	≤ 12%
Cracks and joints (at a reference moisture content of 12%)	Very occasionally permitted ≤ 1.5 mm
Defects on the surface and on cut edges	Occasionally small defects permitted
Cut edge re-treatment with hand sandpaper, chamfer on TL panels (in the panel width joint)	Yes
Range of validity	The stated surface qualities apply: - at the time of dispatch and to one-sided visible surfaces - to the top layer only, not to narrow sides (only the criteria for surface quality NVQ apply to narrow sides and all surfaces processed by CNC machines)
Crack formation	As in all structural solid wood products, crack and joint formation as a result of drying to their future ambient moisture conditions after installation is product-specific and cannot be avoided. Take care to avoid major fluctuations in the indoor climate during both the construction phase (e.g. when drying screed) and the use phase. The ideal humidity level is 40 – 60%.
Note	Wood is a natural product. Minor deviations from the table values are natural and do not constitute grounds for complaint.

PRECIOUS WOOD SURFACES AND SURFACE REFINEMENT

Precious wood surfaces require special protection during the transportation and construction phases. The elements are delivered only in a horizontal position with a protective film inserted. Intermediate storage on the construction site must be avoided. To protect against the effects of weather, soiling or discolouration due to UV radiation, we recommend a water-based, colourless factory coating with UV protection. In addition, the elements on the non-visible side can be given a temporary protective membrane for the construction period.

When planning, also take into account the detailed design of the panel joints. For a high-quality result, large-format elements should be used, the number of joints should be reduced to a minimum, and visible cut edges should be avoided. The simpler the element cut and the connection details are kept at the planning stage, the greater the probability of achieving a special appearance in the building.

: Volker Wortmeyer, Msc

SURFACE REFINEMENT

ORDER CODE	PRODUCT	COATING DESIGN	SURFACE APPEARANCE	AREA OF APPLICATION	HSB CODE
Remmers 810	Induline OW-810	Two-layer, on one visible side	Colourless oil, matte	Intermediate and final coating, water-based	06-04
Koch & Schulte 851 Natural	Lignopro 851 CLT-Varnish UV	Two-layer, on one visible side	Mildly pigmented, matte	Hydrophobic middle-layer varnish with UV protection, water-based	16-04

KLH PROTECT POWERED BY ISOCELL PROTECTIVE MEMBRANE

ORDER CODE	AREA OF APPLICATION	HSB CODE
KLH Protect	Temporary protection of the surface of roof and ceiling elements during storage, transport, assembly and the building phase	31-00

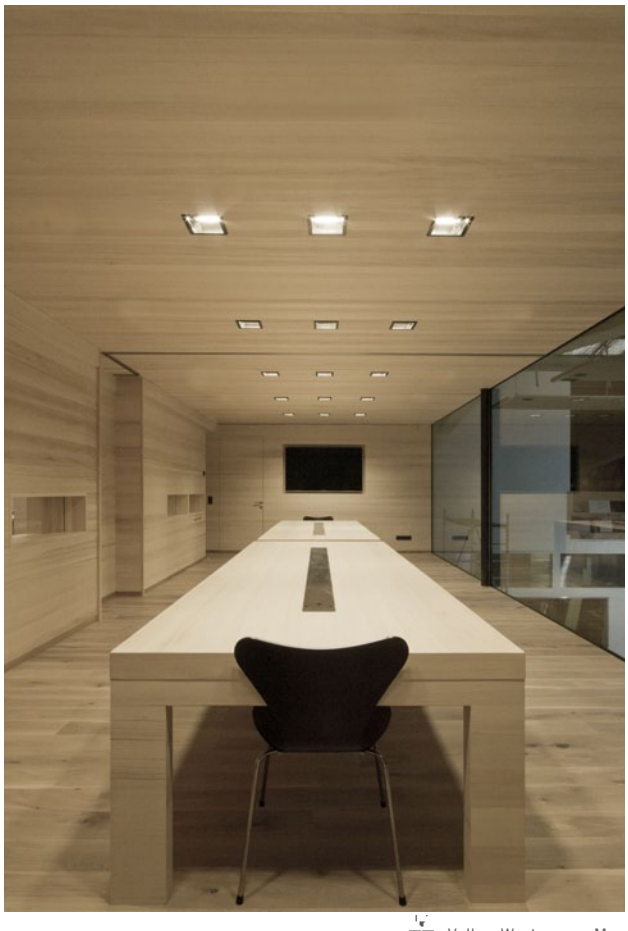
PRINCIPLES FOR A LASTING QUALITY OF LIVING

KLH® - CLT elements with a precious wood surface should only be installed by experienced, specially equipped and trained specialised companies.

Transport packaging must be removed quickly due to the risk of surface condensation and components must be protected from the weather, dirt and damage at all times.

It is mainly the outer layers of the cross-laminated timber that absorb moisture during construction. Moisture increase (for example due to screed or plaster work) should be avoided by checking the wood moisture and the indoor climate. As in all solid wood products, cracks due to drying to their future ambient moisture conditions after installation are product-specific and cannot be avoided.

By observing a few guidelines, you can create quality living in any desired form with an ecological and durable building material – wood provides warmth and comfort and is a healthy companion in any room.



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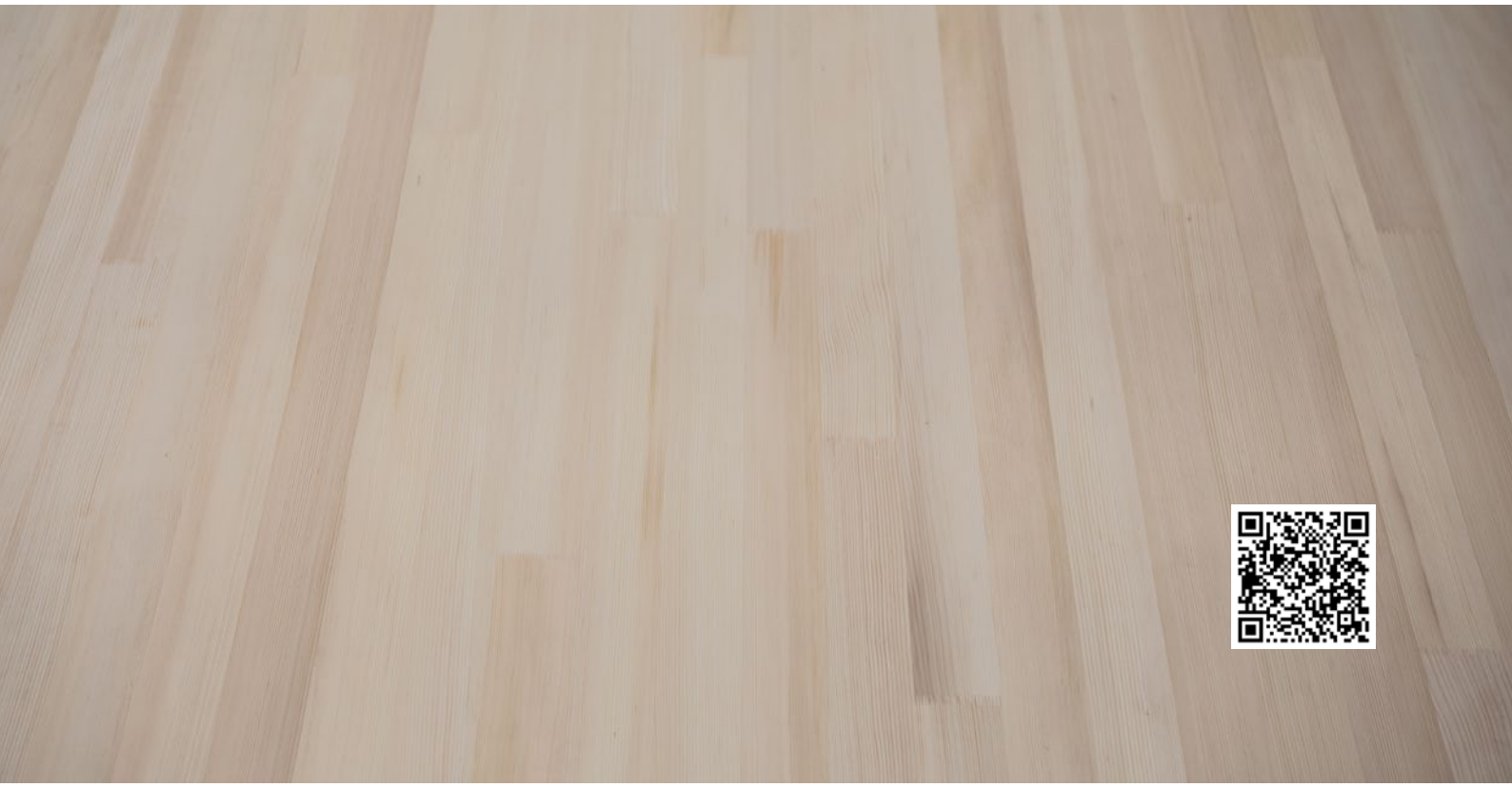

Precious wood surface – KLH® Select Silver Fir

: KLH

KLH MASSIVHOLZ GMBH

Gewerbestraße 4 | 8842 Teufenbach-Katsch | Austria

Tel +43 (0)3588 8835 | Fax +43 (0)3588 8835 415

office@klh.at | www.klh.at

For love of nature

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