

Competence and innovation



**SCHILLIGER  
HOLZ**

# LAMINATED WOOD CEILING SYSTEMS





# PERFECT FIT

Our laminated wood ceiling systems are made with the latest gluing and joinery technologies.



## YOUR PRODUCT

- High carrying capacity with low bulk density
- High form stability through gluing
- Lengths 4.00 m – 18.00 m, thicknesses 100 mm – 280 mm, widths 200 mm – 1,000 mm
- Automated production with large capacity
- Very high precision thanks to state-of-the-art technology
- Optimal material utilisation
- Constant further development through regular quality controls

## YOUR BENEFITS

- Versatile applications thanks to 4 different standard profiles
- Many different process options (joinery, surface treatment) according to your wishes
- Optimised delivery times, including for large projects, delivery straight to the construction site
- Quick and economic assembly thanks to the high degree of prefabrication
- Personal counselling by our sales team

## AND ESPECIALLY ...

- CLT, laminated wood, solid wood, planed goods, wood fibre insulation boards – everything from one single provider



# SCHILLIGER WOOD – NATURALLY, FROM SWITZERLAND

In our Swiss workshop, we work almost exclusively with wood from Swiss forests. We thereby strengthen the Swiss forestry industry, minimise transport and make an important contribution to a low ecological footprint for your construction project.





# QUALITY CRITERIA

| CHARACTERISTICS   | NORMAL QUALITY  | INDUSTRY QUALITY  |
|---|---|---|
| <b>General</b>  | For visible areas with normal appearance requirements, e.g. visible roof trusses, living areas, carports etc. | For areas without appearance requirements, e.g. industrial and production warehouses, non-visible roof trusses, agricultural buildings etc. |
| <b>Knots</b><br>– Healthy knots with a strong implantation<br>– Other knots and knotholes | permitted<br>permitted<br>patched with largest visible diameter over 20 mm                                    | permitted<br>permitted  |
| <b>Resin pockets</b>  | permitted up to 5 mm x 50 mm  | permitted   |
| <b>Bark ingrowth</b>  | not permitted   | permitted   |
| <b>Wane and bark</b>  | not permitted<br>bark not permitted   | wane permitted  |
| <b>Colourings (blue/brown and red stripes)</b>  | permitted up to 10% of the visible surface  | permitted   |
| <b>Rot</b>  | not permitted   | not permitted   |
| <b>Insect infestation</b>   | Wormholes up to 2 mm in diameter permitted with inactive insect infestation                                   | Wormholes up to 2 mm in diameter permitted with inactive insect infestation   |
| <b>Cracks</b>   | Shrinkage cracks up to 4 mm crack width permitted<br>Other cracks not permitted                               | Shrinkage cracks permitted<br>Other cracks not permitted  |
| <b>Lengthwise curvature</b>   | permitted up to 4 mm over 2 m   | permitted up to 4 mm over 2 m   |
| <b>Finger joint gap between the covering slats</b>  | no limit  | no limit  |
| <b>Surface</b>  | planed and bevelled   | planed and bevelled   |
| <b>Repairs with wedges, dowels, slats etc.</b>  | permitted   | not necessary   |
| <b>Repairs with filler (e.g. putty)</b>   | permitted   | not necessary   |
| <b>Plane iron impacts</b>   | no limit  | no limit  |

# SOLID WOOD BOARDS

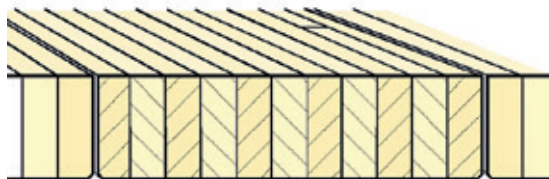
Standard for ceilings and floors.



# TECHNICAL DATA

|                                  |   |
|----------------------------------|---|
| <b>Wood type</b>                 | Spruce/fir  |
| <b>Appearance classification</b> | N Normal quality for visible areas<br>I Industry quality for areas without appearance requirements  |
| <b>Strength class</b>            | C24   |
| <b>Board thickness</b>           | 100 mm - 280 mm in 20 mm-segments   |
| <b>Board thickness</b>           | 200 mm - 1,000 mm in 50 mm-segments   |
| <b>Lengths</b>                   | 4.00 m - 18.00 m  |
| <b>Surface</b>                   | <ul style="list-style-type: none"><li>• Planed and bevelled on 4 sides</li><li>• Surface sanding for visible areas upon request</li></ul>                                       |
| <b>Wood humidity</b>             | 12% ± 2%  |
| <b>Thermal conductivity</b>      | $\lambda = 0.13 \text{ W}/(\text{m} \cdot \text{K})$  |
| <b>Fire protection class</b>     | D-s2,d0 (according EN 13501-1)  |
| <b>Gluing</b>                    | <ul style="list-style-type: none"><li>• Polyurethane (PUR), glue type according to EN 15425</li><li>• Solvent-free (no formaldehyde)</li><li>• Colourless glue joints</li></ul> |

**Schematic representation**



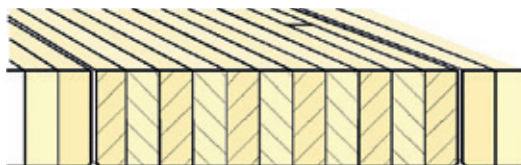
# JOINT FORMATION

## Standard joint profile

We provide the solid wood boards with four different standard profiles:

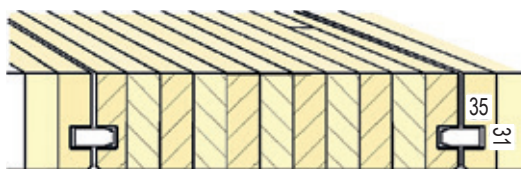
### Blunt, without grooves

No processing of the board joints



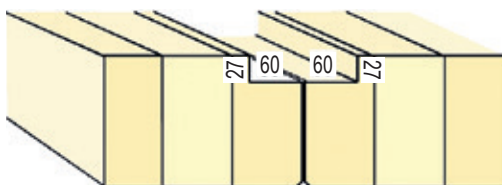
### Groove-groove

One or two-sided groove for tongues  
Groove dimensions 31 x 35 mm, tongue 31 x 65 mm



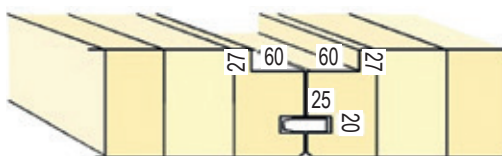
### Rabbet

Rabbet for joint cover  
Rabbet dimensions 27 x 60 mm, 3-layer joint cover 27 x 120 mm



### Groove-groove and rabbet

Groove for tongue and rabbet for joint-cover  
Groove dimensions 20 x 25 mm, tongue 20 x 45 mm  
Rabbet dimensions 27 x 60 mm, 3-layer joint-cover 27 x 120 mm



### Joinery

- High precision, with optimal material utilisation
- Many different process options thanks to state-of-the-art technology
- Constant further development through regular quality controls
- Advice from qualified expert workers
- Quick and economic assembly at the construction site or in the workshop through a high degree of prefabrication







# DBS RBS/MHT FLOORBOARDS

Simply beloved.

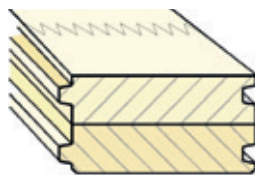




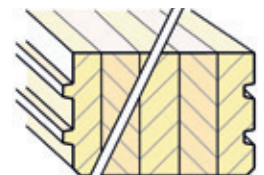
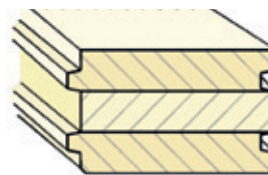
# TECHNICAL DATA

|                                  |   |
|----------------------------------|---|
| <b>Wood type</b>                 | Spruce/fir<br>Other wood types upon request   |
| <b>Appearance classification</b> | N Normal quality for visible constructions, one visible side<br>I Industry quality for areas with low appearance requirements   |
| <b>Strength class</b>            | C24   |
| <b>Board heights</b>             | 80 mm - 200 mm in 20 mm-segments  |
| <b>Board widths</b>              | Type A DBS/RBS: 190 mm<br>Type B DBS/MHT: upon request  |
| <b>Lengths</b>                   | 4.00 m - 18.00 m  |
| <b>Surface</b>                   | <ul style="list-style-type: none"> <li>• Planed and bevelled on 4 sides</li> <li>• Visible surface sanded upon request</li> </ul>   |
| <b>Wood humidity</b>             | 12% ± 2%  |
| <b>Thermal conductivity</b>      | $\lambda = 0.13 \text{ W}/(\text{m} \cdot \text{K})$  |
| <b>Fire protection class</b>     | D-s2,d0 (according to EN 13501-1)   |
| <b>Gluing</b>                    | <ul style="list-style-type: none"> <li>• Polyurethane (PUR), glue type I according to EN 15425</li> <li>• Solvent-free (no formaldehyde)</li> <li>• Colourless glue joints</li> </ul> |

## Schematic representation



**DBS RBS Type A**



**DBS MHT Type B**







# MHP PRE-MEASUREMENT TABLE

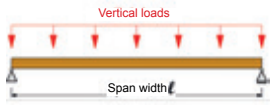
## W/H CROSS-SECTION FOR THE SERVICEABILITY CHECK FOR NON-DEFORMATION-SENSITIVE INSTALLATIONS WITH $W < L/350$

|                              |              |                       |            |            |            |            |            |            |            |            |            |            |
|------------------------------|--------------|-----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Light floor structure</b> | $g_k$        | 0.8 kN/m <sup>2</sup> |            |            |            |            |            |            |            |            |            |            |
| <b>Living cat. A1</b>        | $q_k$        | 2.0 kN/m <sup>2</sup> |            |            |            |            |            |            |            |            |            |            |
| Span width $l$ in m          |              | 3.00                  | 3.50       | 4.00       | 4.50       | 5.00       | 5.50       | 6.00       | 6.50       | 7.00       | 7.50       | 8.00       |
| Sprung mass = width = 1.0 m  |              |                       |            |            |            |            |            |            |            |            |            |            |
| Width / Thickness [mm]       | <b>1,000</b> | <b>100</b>            | <b>100</b> | <b>120</b> | <b>120</b> | <b>140</b> | <b>160</b> | <b>180</b> | <b>180</b> | <b>200</b> | <b>220</b> | <b>240</b> |

|                              |              |                       |            |            |            |            |            |            |            |            |            |            |
|------------------------------|--------------|-----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Heavy floor structure</b> | $g_k$        | 1.6 kN/m <sup>2</sup> |            |            |            |            |            |            |            |            |            |            |
| <b>Living cat. A1</b>        | $q_k$        | 2.0 kN/m <sup>2</sup> |            |            |            |            |            |            |            |            |            |            |
| Span width $l$ in m          |              | 3.00                  | 3.50       | 4.00       | 4.50       | 5.00       | 5.50       | 6.00       | 6.50       | 7.00       | 7.50       | 8.00       |
| Sprung mass = width = 1.0 m  |              |                       |            |            |            |            |            |            |            |            |            |            |
| Width / Thickness [mm]       | <b>1,000</b> | <b>100</b>            | <b>120</b> | <b>120</b> | <b>140</b> | <b>160</b> | <b>180</b> | <b>180</b> | <b>200</b> | <b>220</b> | <b>240</b> | <b>260</b> |

|                              |              |                       |            |            |            |            |            |            |            |            |            |            |
|------------------------------|--------------|-----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Heavy floor structure</b> | $g_k$        | 1.6 kN/m <sup>2</sup> |            |            |            |            |            |            |            |            |            |            |
| <b>Office cat. B</b>         | $q_k$        | 3.0 kN/m <sup>2</sup> |            |            |            |            |            |            |            |            |            |            |
| Span width $l$ in m          |              | 3.00                  | 3.50       | 4.00       | 4.50       | 5.00       | 5.50       | 6.00       | 6.50       | 7.00       | 7.50       | 8.00       |
| Sprung mass = width = 1.0 m  |              |                       |            |            |            |            |            |            |            |            |            |            |
| Width / Thickness [mm]       | <b>1,000</b> | <b>100</b>            | <b>120</b> | <b>140</b> | <b>140</b> | <b>160</b> | <b>180</b> | <b>200</b> | <b>220</b> | <b>240</b> | <b>240</b> | <b>260</b> |

### Preconditions



- Loads  $g^k$  and  $q^k$  distributed equally across the entire surface. No single load.
- Straight single-span girders with constant right-angle cross-section and with C24 strength.
- Girders protected against weather conditions (humidity class 1).
- Long-term effects due to creep are taken into account.
- Preconditions generally according to SIA norms.

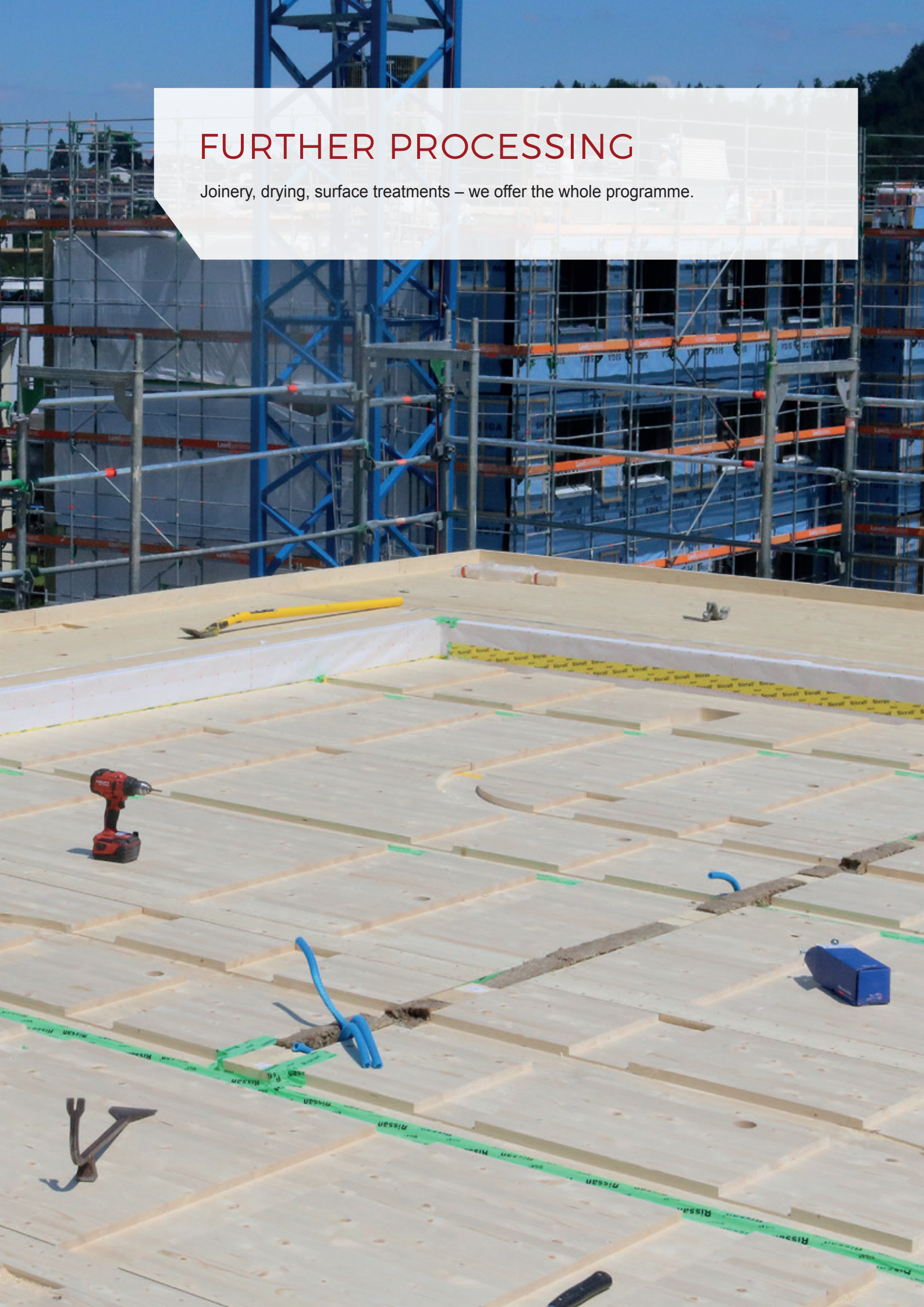
### Application example

Living surface (category A1)  $q^k=2.0\text{kN/m}^2$ . Heavy floor structure  $g^k=1.6\text{kN/m}^2$ . Span width  $l=6.00\text{m}$ . Possible thickness with MHP: 180 mm

This table helps with pre-measurement; however it does not replace a statistical calculation.

# FURTHER PROCESSING

Joinery, drying, surface treatments – we offer the whole programme.





## JOINERY: AT THE HIGHEST LEVEL

Our modern, robot-controlled joinery facility has a diverse range of tools and works with the highest precision. This allows us to cater to your individual construction wishes and manage complex projects. Data from various drawing programs can be directly fed into our system for this purpose.

## DRYING: FULL SERVICE

Thanks to a large number of modern, computer-controlled drying installations, the wood is not denatured.

## SURFACE TREATMENTS: EXACTLY AS YOU WANT

In cooperation with a painting company, we offer a large number of surface and colour treatments.

## AND ESPECIALLY ...

Thanks to our Schilliger lorry fleet, we can offer transport services directly to your construction site.





## SCHILLIGER HOLZ AG – ALWAYS CLOSE TO YOU

### Haltikon (CH)

Main office; sawn timber, planed goods, glued wood, panels, sawmill by-products



### Küssnacht am Rigi (CH)

Wood fibre insulation boards



### Perlen (CH)

Sawn timber, sawmill by-products



### Volgelsheim (F)

Sawn timber, finger-jointed solid wood, panels, sawmill by-products



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