NOVATOP FACADE

Technical documentation

NOVATOP

SUPPORT FOR YOU

Samples

200 x 300 x 57 mm

You can order samples at novatop@agrop.cz

On-line

3D library

Facade

Technical documentation

Business documents

Complaint report

General terms and conditions

NOVATOP FACADE CONTENT

Warning:
The product is under development.
You can find the current technical documentation on the website in downloads section.

V: 01/26

NOVATOP

NOVATOP FACADE
DATOVÝ LIST

CONTENT

NOVATOP FACADE – 3-LAYER PANEL WITH A TONGUE AND A GROOVE	
Technical requirements	EN 13353, EN 13986
Classes of application	SWP/3 S according to EN 13353
Wood	Nordic spruce
Adhesive	MUF
Thickness (mm)	27 (9-9-9)
Standard formats – net (mm)	Horizontally: Width: 604, 1229 Length: 2500, 5000 Vertically: Width: 617, 1242 Length: 2500, 2900*, 5000 (* on demand)
Dimensional tolerances	Processing tolerance in a thickness of ±0.4 mm Tolerance in strength (grinding) of ±0.2 mm Tolerance in nominal width and length of ±0.5 mm
Surface	Brushed
Surface finish	Water-soluble UV-stable glazing paint – Adler Lignovit Platin
Colour shades	Quartzgrau 53294 Achtgrau 53292 Topasgrau 53317 Pyritgrau 53316
Edge sealing	Adler Aquawood Intermedio ISO or Remmers Induline SW-910
Edge machining (mm)	4-sided Horizontal: spring and groove – FACADE type Vertical: spring and groove – FACADE type
Moisture of wood	8±2 %
Specific weight	490 Kg/m^3
Reaction to fire	D-s2, d0
Nominal value of thermal conductivity (λ)	0.13 W/mK with a specific weight of 490 kg/m^3 according to EN ISO 10456 – spruce
Diffusion resistance (μ)	200/70 (dry/wet)
Sound absorption	250–500 Hz – 0,1 1000–2000 Hz – 0,3
Sound insulation (dB)	R = 13 x log (m_a) + 14 m_a = surface weight kg/m^2
Specific heat capacity (c_p)	1 600 J/kgK dle EN ISO 10456

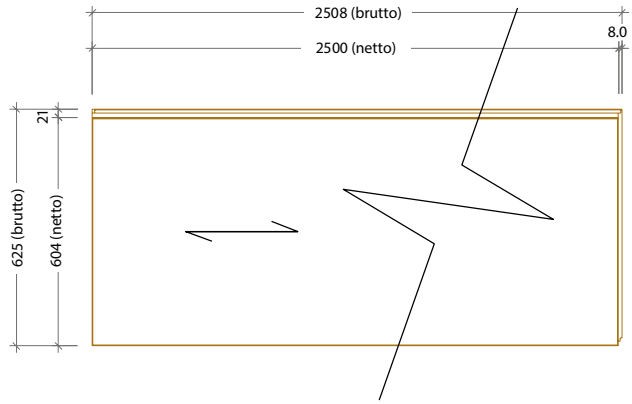
Horizontal machining: NOVATOP FACADE tongue and groove

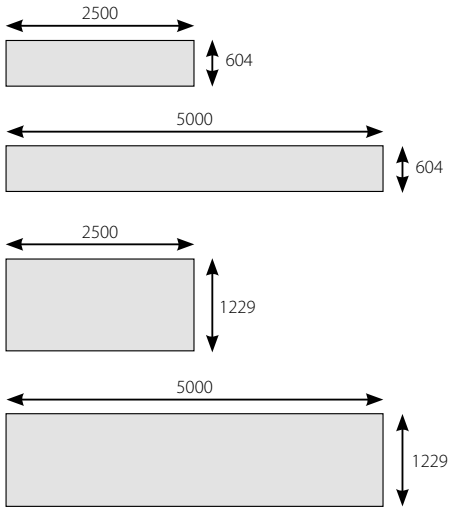
Vertical machining: NOVATOP FACADE tongue and groove

NOVATOP FACADE FORMATS

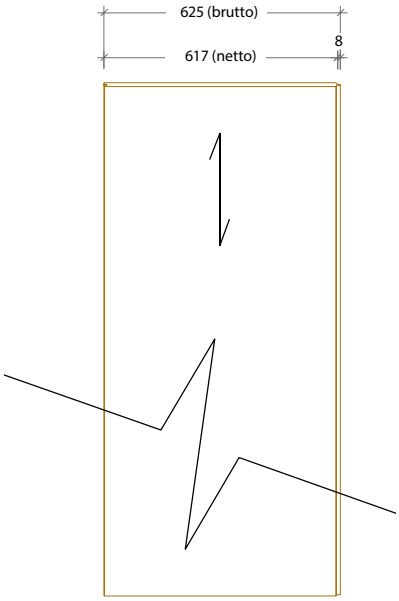
CONTENT

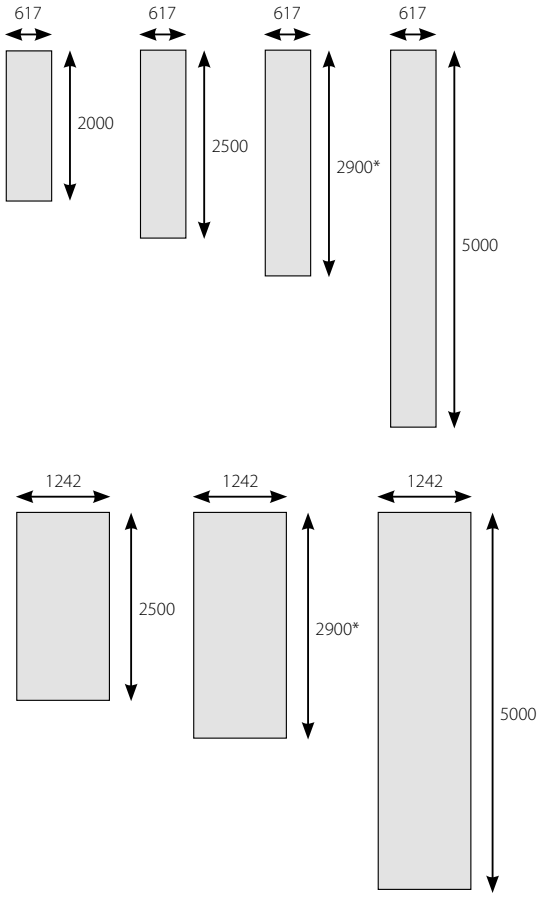
HORIZONTAL





VERTICAL (ON DEMAND)





* On request 2,900 mm or formatted a default length of 5,000 mm.

INDIVIDUAL FORMATS

We supply other formats based on individual demand, depending on the project.

NOVATOP FACADE SURFACE FINISH

CONTENT

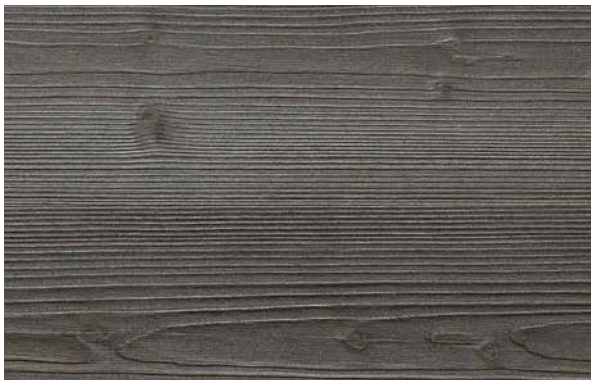
Brushing: highlights the structure of the wood, improves the adhesion of the glazing paints, thus extending the durability of the coating.
Glazing paint: Water-soluble Adler Lignovit Platin.
Special aluminium pigments add metallic gleams to the selected shade and effectively reflect UV radiation, thereby extending the life of the treated surfaces. It provides excellent weather resistance, vapour permeability and high UV stability.

STANDARD

Brushed surface – without surface finish

Brushed – with Quartzgrau 53294 glazing paint

Brushed – with Pyritgrau 53316 glazing paint



Brushed – with Achatgrau 53292 glazing paint

Brushed – with Topasgrau 53317 glazing paint

Edge protection: ADLER Aquawood Intermedio ISO or Remers Induline SW-910

NON-STANDARD

Also colours of your choice on demand.

NOVATOP FACADE OTHER

CONTENT

Production and quality control

NOVATOP FACADE three-layer panels are made from lamellas of solid spruce wood. The lamellas in the individual layers are glued together in both the longitudinal and transverse directions. The layers are rotated 90° relative to each other and then glued together. The moisture content of the panels upon dispatch is 8% ± 2%. All machining of panels is performed on CNC machines. Each panel undergoes individual final quality control.

Detailed specifications of the production technology are provided in a document entitled **"NOVATOP Quality"**.

Warning: Due to the natural properties of wood, the panels can respond to changes in temperature and relative humidity with volume changes, especially shrinking, swelling or twisting. These phenomena are part of the natural behaviour of the material.

Surface treatment

Brushing
- The panels are brushed on the visual side.
- Brushing highlights the natural structure of the wood and improves the adhesion of subsequent glazing paints, thereby contributing to extending their lifespan.

Glazing paint

Type of glazing paint: water-soluble Adler Lignovit Platin.
- It contains special aluminium pigments that provide a metallic effect and reflect UV radiation.
- It provides high resistance to weather conditions.
- It is resistant to colour changes caused by UV radiation and has high vapour permeability, which supports long-term wood protection.

Glazing paint application
- Adler Lignovit Platin glazing paint is applied on both sides.
- The final coating is applied to the brushed surface and is performed by spraying in two layers; one layer is applied from the back side.
- Different reflections (e.g. around the knots) are a natural phenomenon.
- The edges of the panels are treated with glazing paint in the standard version. (Adler Aquawood Intermedio ISO or Remmers Induline SW-910).
- The final coating is the final finish without the need for additional layers. Exception include local repairs after the assembly or machining, which may be visually noticeable.

Natural aging

NOVATOP three-layer panels are made with exceptional care, the wood is dried to 8 %, the lamellas are sorted, the surface is closed and straightened. This guarantees the long-term stability of the panel in the exterior, but it is still necessary to take into account the properties of natural wood. Untreated wood naturally darkens due to oxidation and exposure to light; it is mainly affected by the type of exposure. Over time, the surface of the panels is subject to greying, erosion and slight cracks. It is advisable to choose surface finishes based on the fact that the erosion over time is close to these colours.

The manufacturer defines permissible defects within the specified quality of the panels; natural signs of these defects are not grounds for complaint.

Natural aging

Permissible defects

Permissible defects

NOVATOP FACADE OTHER

Packaging

- After the output inspection, the panels are placed into packages in wooden crates.
- In the package, the panels are stacked with the higher quality side facing up, and the top panel with the higher quality facing down.
- The bottom panel is placed on timber beams with a spacing of approximately 1 m.
- The package is wrapped in PE foil on all sides.
- The fronts of the package are covered with cardboard.
- The package has edge protection and a stand in the middle of the package made of SWP panel.
- The identification label is placed on the longitudinal side of the package.
- The panels are individually interleaved with Mirelon (insulation material made of lightweight polyethylene foam).
- Packaging in a crate provides protection against contamination, and offers partial protection against mechanical.

Transport

The standard method of transportation is in covered trucks or 20ft or 40ft containers. The approximate capacity of a truck or a 40ft container is approximately 40 m^3 of panels.

Handling

The packages are designed for handling using front or side forklifts, or, possibly, cranes.

Storage

- Store the panels in dry, closed and well-ventilated areas.
- Lay the panels horizontally, supported by timber beams with a recommended spacing of approximately 1 m.
- After removing the protective PE packaging, carefully cover the panels.
- During storage, protect the panels rom rain and running water, dirt and direct sunlight.
- It is not permitted: to step on or place other materials or loads on the packages.
- The visual surfaces of the panels must be kept clean to prevent damage.

Warning: During transportation, handling and storage, it is necessary to ensure the protection of packaging material and panels from mechanical damage and adverse weather conditions.

Machining

The panels can be processed using standard woodworking tools and machines, just like solid wood – they can be drilled, cut, milled, sanded, or repaired. Wood dust comes into existence while machining.

Application

Warning:

- When using the panels outdoors, the natural reactions of wood to climatic conditions must be taken into account.
- Due to the natural properties of wood, the panels can respond to changes in temperature and relative humidity with volume changes, especially shrinking, swelling or twisting; these phenomena are a natural property of the material.
- Wood exposed to weather conditions is naturally subject to greying, surface erosion, and the formation of fine cracks.
- The panels cannot be used in a marine environment, i.e., within 10 km from the coast.

PRINCIPLES OF CONSTRUCTION PROTECTION

- A ventilated gap of at least 40 mm thick must be provided behind the cladding, with proper connection to the external environment. The depth of the ventilation depends on the type of structure, composition and size of the ventilated area.
- The facade panels must be installed at least 300 mm above ground level to ensure protection against water spray.
- The supporting grid must be oriented perpendicular to the direction of the panel fibres.
- The method of anchoring and the amount of fasteners depends on local conditions and static assessment.
- When using a grid made of materials other than wood, it is necessary to take into account the different thermal expansion and related measures (e.g. by pre-drilling of the openings for screws, leaving a dilatation clearance, enlarging the joints between the panels).
- The placement of the facade panels must minimize the exposure of horizontal front sides:
  - use of panels over the full height of the wall,
  - use of spring and groove joints and edge protection,
  - sheeting of front sides between individual floors.
- The uniform exposure of individual facade surfaces to external conditions contributes to consistency in colour. It is recommended:
  - for low walls, design a larger roof overhang,
  - for higher walls, a small or no overhang,
  - a plinth of at least 300 mm,
  - minimizing the overlap of sill panels,
  - preventing local water running down the surface of facade panels.
- In the case of horizontal battens, sufficient ventilation must be provided (e.g. by a gap behind the battens or by adding vertical battens).
- Vegetation must not limit the function of the facade; the recommended minimum distance is > 1 meter. Climbing plants are undesirable.

MAINTENANCE PRINCIPLES

- The functional life of the facade panels is mainly influenced by the type of exposure, the structural details, and the method of anchoring.
- For a long functional life, it is necessary to follow the principles of structural wood protection, regularly remove dirt, and promptly repair local surface defects.

Necessary measures:

- Regular removal of dirt.
- Cleaning of surfaces infested with fungi and algae.
- Regular inspection of surface finishes and timely repair of damage.
- Insect infestation and hail damage must be dealt with by a specialist.
- Enabling the rear ventilation to function properly.
- Replacement of deformed or damaged facade elements.
- In the event of detecting damp areas or having a suspicion about water ingress, it is necessary to call an expert.

Warning:

- Respect the natural behaviour of wood in the exterior.

NOVATOP FACADE OTHER

SURFACE TREATMENT – MAINTENANCE PRINCIPLES

Maintenance of Adler Lignovit Platin glazing paint:

- Surface treatments must be checked regularly to detect and repair any damage in a timely manner.
- Surface renovations are planned depending on the location of the panels, the structure, the nature of the surface treatment and the degree of exposure to climatic conditions.
- Visual changes in the paint, such as a change in shade or loss of gloss, are a natural sign of aging and are not grounds for complaint
- **Warning:** Surface finishes undergo natural visual changes over time, such as a change in shade or loss of gloss. When combining different batches of glazing paints, possible differences in colour tone due to aging must be taken into account. Multiple batch combinations are usually visually noticeable and cannot be considered a manufacturing defect.

For the recommended procedure, see the supplier's maintenance manual.

If the panels are not factory-coated, we recommend treating them with a suitable surface treatment intended for solid wood used in the exterior.

- The application of surface treatment is governed by the technological procedure of the manufacturer of the selected coating.
- The surface treatment increases the panels' resistance to dirt and UV radiation and extends their aesthetic value.
- Surface treatments must be checked regularly to detect and repair any damage in a timely manner.
- Surface renovations are planned depending on the location of the panels, the structure, the nature of the surface treatment and the degree of exposure to climatic conditions.
- Maintenance and renovation are governed by the technological procedure of the manufacturer of the selected coating.

WARRANTY

The warranty for NOVATOP FACADE panels is governed by the valid General Terms and Conditions of the Manufacturer – AGROP NOVA a.s. The warranty is provided for 10 years on the functionality of the panel, assuming proper machining, use, compliance with the principles of structural wood protection and maintenance.

The manufacturer guarantees that during the warranty period:

- there is no degenerative damage to the wooden material,
- no more than 5 % of the total facade area will be affected by the lamellas coming loose from more than 30 % of their surface area,
- there will be no extensive peeling of the coating system,
- no renovation coatings are necessary.
- new facade panels will only be delivered to replace defective or damaged items.

The warranty does not cover especially:

- mechanical damage,
- damage caused by hail or windstorm,
- exposure to chemicals or aggressive gases,
- damage caused by fire and other extraordinary influences,
- durability of joints and edges of the panels, if they have not undergone surface treatment and have not been provided with adequate structural protection (e.g., sheeting, dilatation joints).

Warning – the manufacturer does not assume liability for any damage caused by:

- incorrect handling,
- improper storage,
- incorrect processing,
- improper use and maintenance.

Business documents:

Complaint report

General terms and conditions

NOVATOP FACADE
FEATURES FOR SORTING

NORDIC SPRUCE

Features for sorting	FACADE quality	
	Front – visual	rear
General, requirements, longitudinal joints	flawless gluing, without open joints	flawless gluing without open joints
Structure, course of fibres, compression wood	roughly grown and light compression wood allowed	without special requirements
Knottiness	healthy, firmly ingrown knots up to a diameter of 50 mm, black knots permissible up to a diameter of 20 mm	without special requirements
Repairs with natural knots	permissible up to diameter of 20 mm – 1 pc / PL	without special requirements
Smolníky	Pitch pockets: exceptionally permissible up to 3 x 50 mm	without special requirements
Repaired pitch pockets	Permissible, max. 1 pc / 1 panel	without special requirements
Cortex	permissible, bark pockets permissible up to 20 mm (not repaired by drilling)	permissible, bark pockets permissible
Cracks	shallow surface cracks exceptionally permissible, passing end cracks up to 50 mm of length exceptionally permissible	without special requirements
Core (pith)	pith permissible with a total length of up to 600 mm in one piece or as the sum of passing parts	without special requirements
Insect infestation, worm	Insect infestation, worm not allowed	not allowed, worm is exceptionally permissible
Blueing	without special requirements regarding PU	without special requirements
Thickness of glued joints	max. 0,3 mm	without special requirements
Surface machining	occasional small defects are permissible	occasional small defects are permissible
The quality of the edge of the panel, bulges, battered places	within 10 mm from the edge is exceptionally permissible	within 50 mm from the edge is exceptionally permissible
Combining different types of wood	not allowed	allowed
Width of individual parts – excluding the outer ones	at least 60 mm	without special requirements
Wood pattern	without special requirements	without special requirements

Definition of defects:

- The manufacturer establishes a binding definition of defects corresponding to the declared quality of the panels.
- Signs resulting from the natural properties of wood that fall within these acceptable parameters are not considered to be defects.

Brushed surface – without surface finish

CONTENT

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Brushed – with Quartzgrau 53294 glazing paint

Brushed – with Achatgrau 53292 glazing paint

CONTENT

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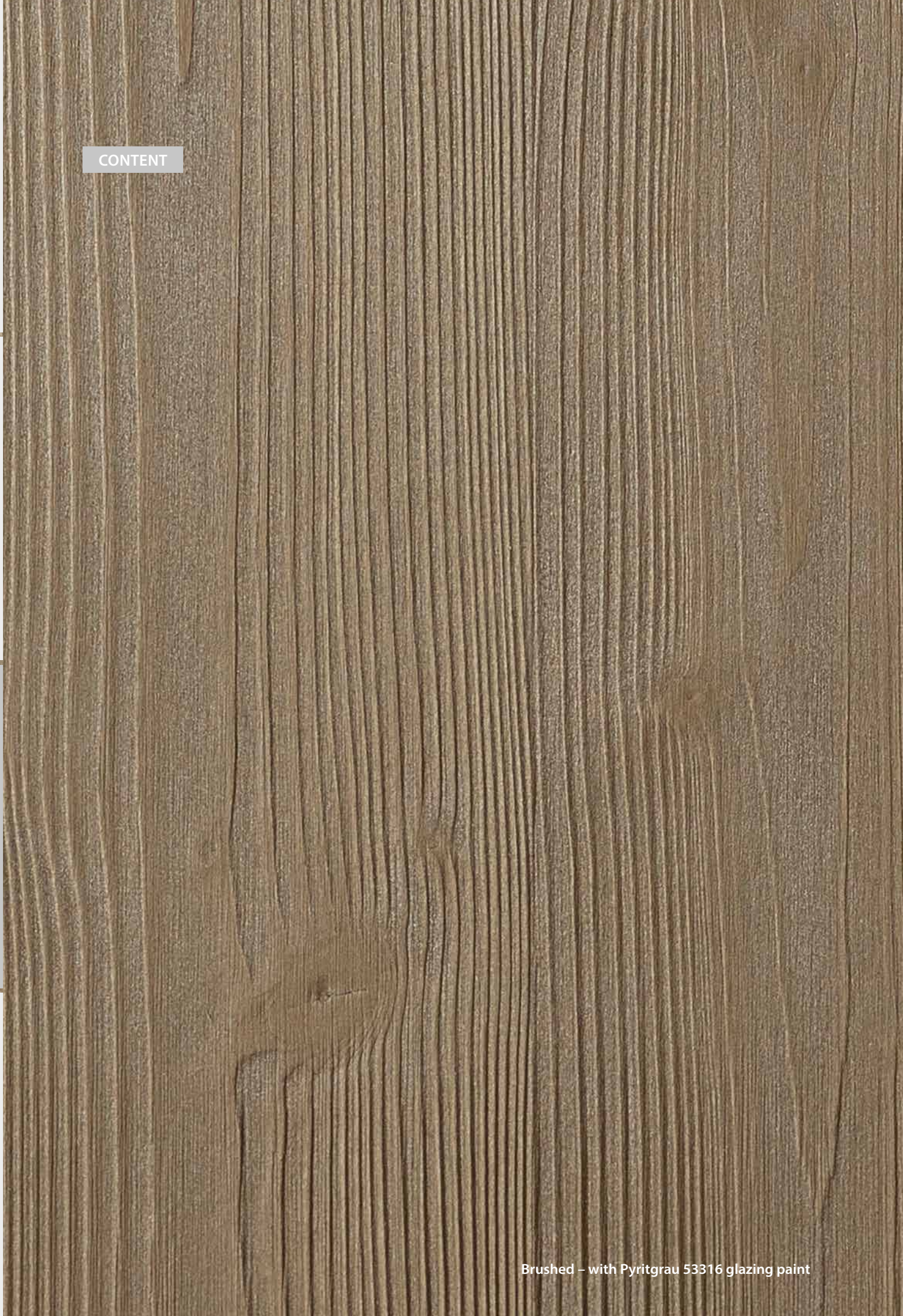
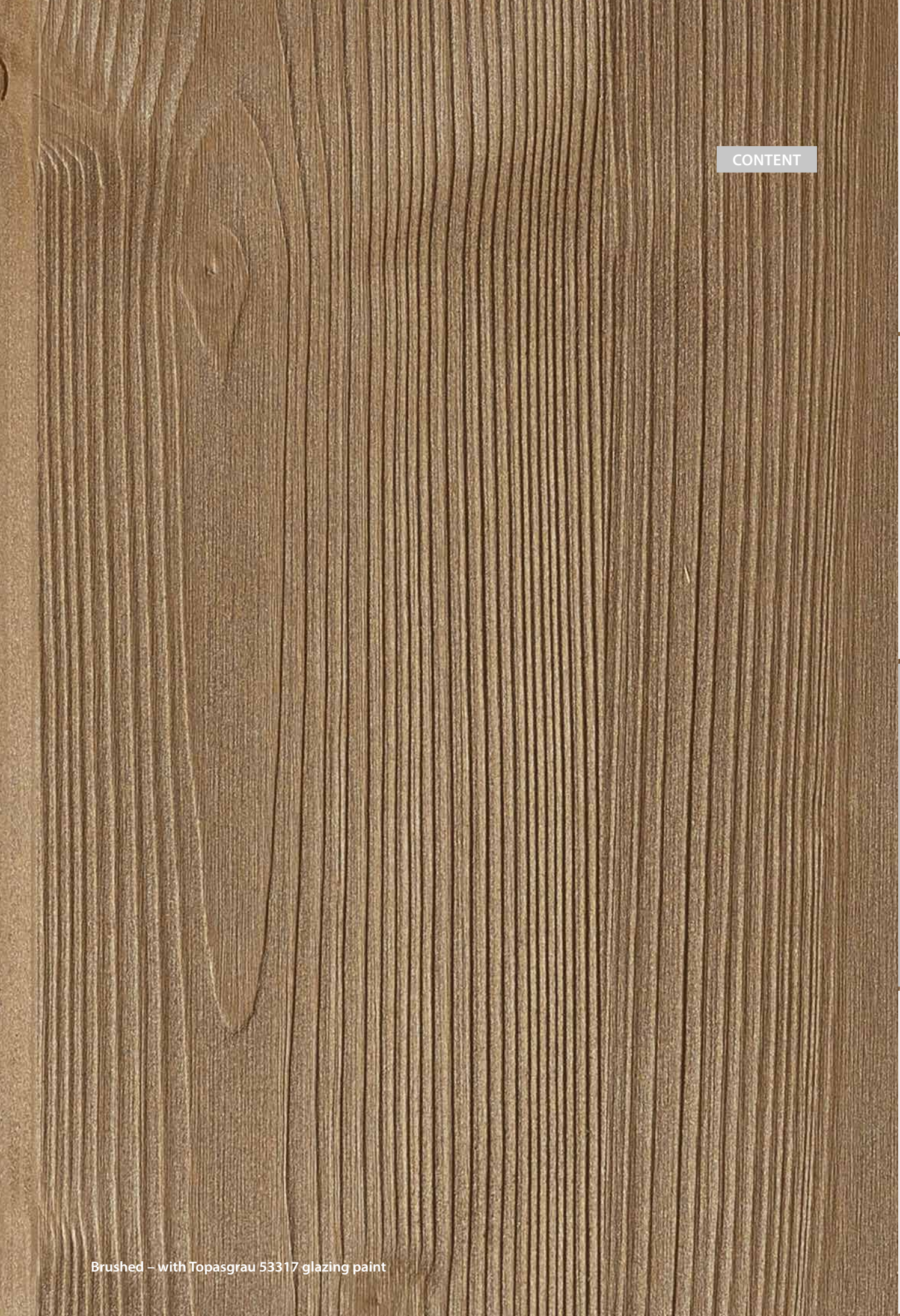


Brushed – with Pyritgrau 53316 glazing paint



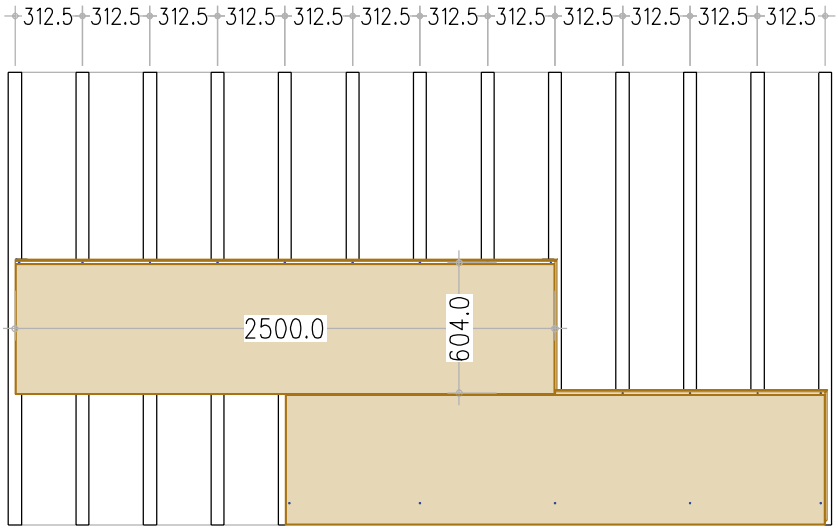
Brushed – with Topasgrau 53317 glazing paint

1. TYPES OF APPLICATIONS

1.1. HORIZONTAL DIRECTION OF FIBRES, TONGUE AND GROOVE, DENSE GRID

FLOOR PLAN

VIEW



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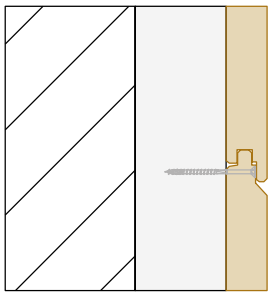
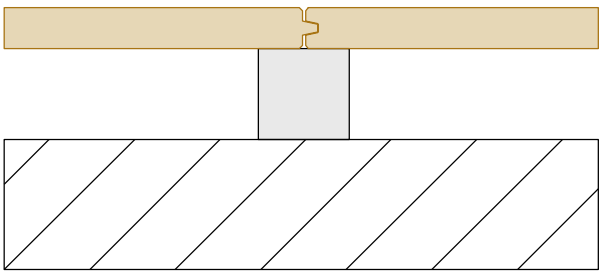


ANCHORING USING TERRACE SCREWS
5 x 60 mm by 312 mm

1:5

VERTICAL JOINT:



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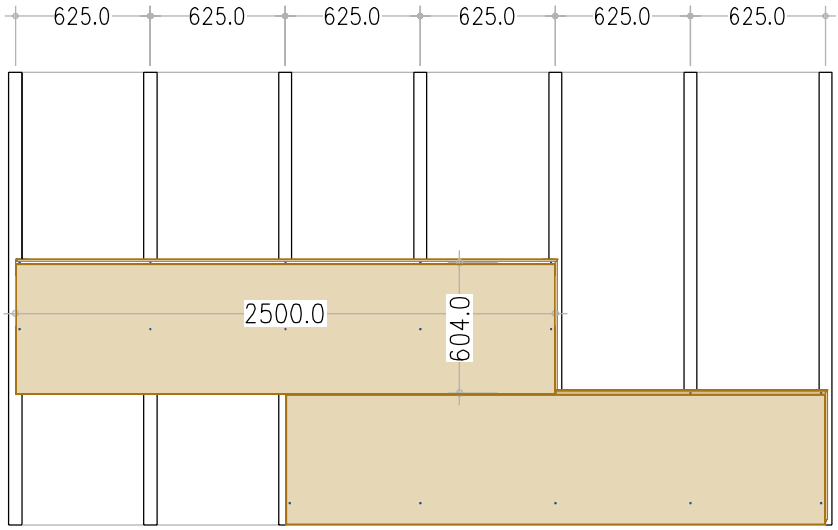
ANCHORING USING SPECIFIC SCREWS MUST BE ASSESSED BY A STRUCTURAL ENGINEER

1.2. HORIZONTAL FIBRE DIRECTION, TONGUE AND GROOVE

FLOOR PLAN

VIEW



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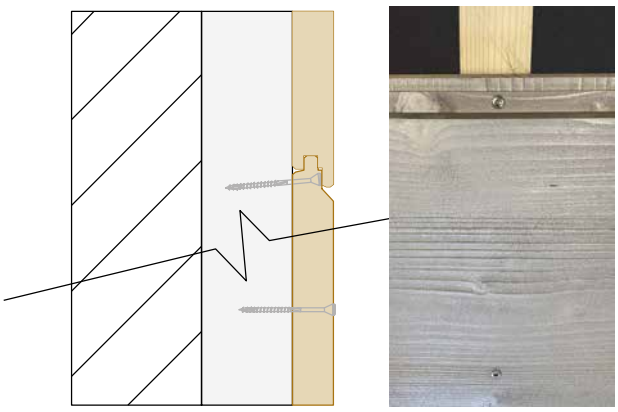

ANCHORING USING TERRACE SCREWS
2x 5 x 60 mm by 625 mm

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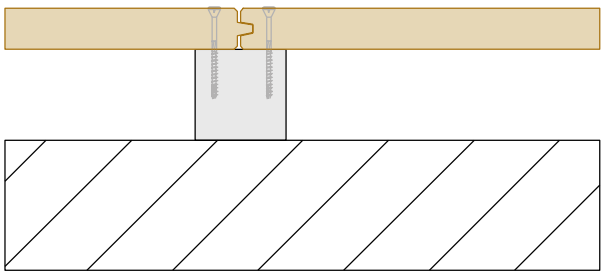


ANCHORING USING TERRACE SCREWS
5 x 60 mm

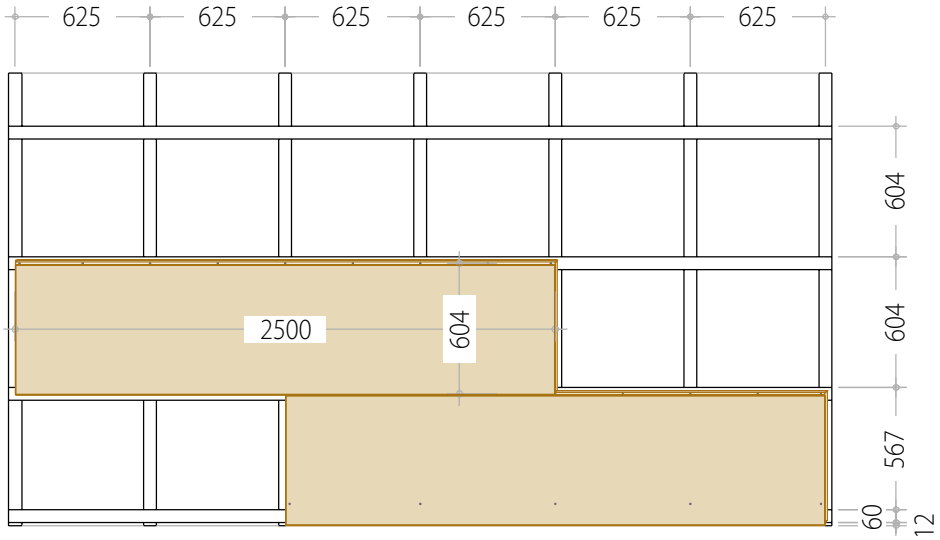
1:5

ANCHORING USING SPECIFIC SCREWS MUST BE ASSESSED BY A STRUCTURAL ENGINEER

1.3. HORIZONTAL DIRECTION OF FIBRES, TONGUE AND GROOVE, DOUBLE GRID

PŮDORYS

VIEW



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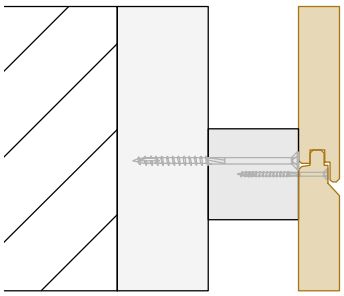
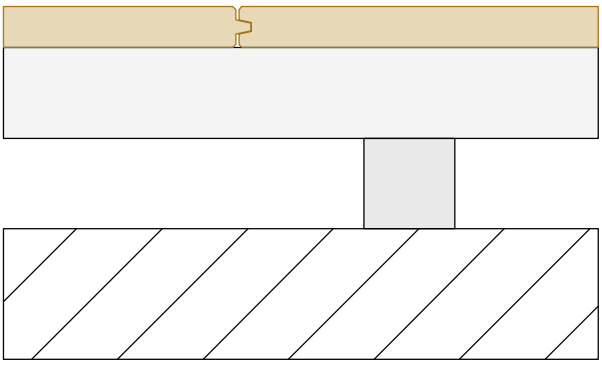


ANCHORING USING SCREWS
5 x 60 mm by 312 mm

1:5

VERTICAL JOINT:



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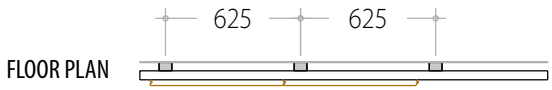
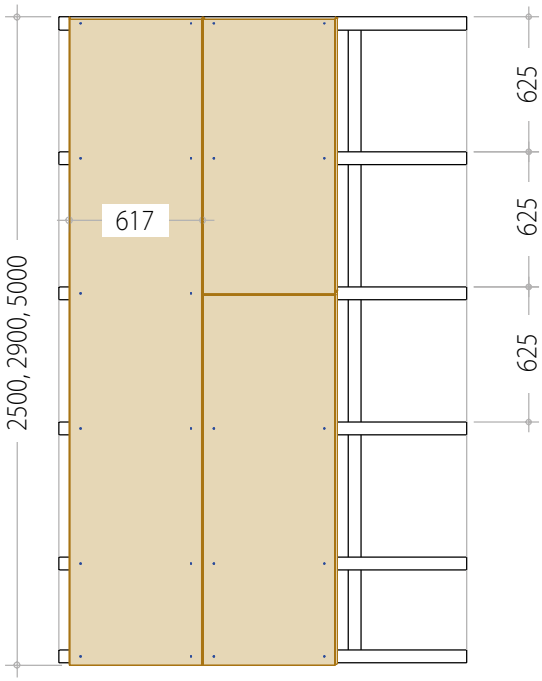
ANCHORING USING SPECIFIC SCREWS MUST BE ASSESSED BY A STRUCTURAL ENGINEER

1.4. VERTICAL DIRECTION OF FIBRES, TONGUE AND GROOVE, DOUBLE GRID





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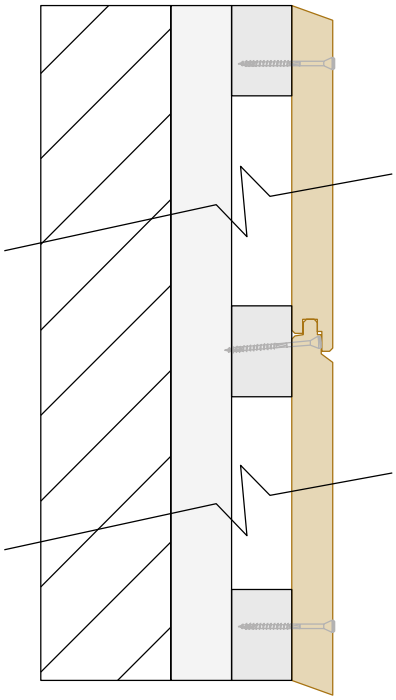
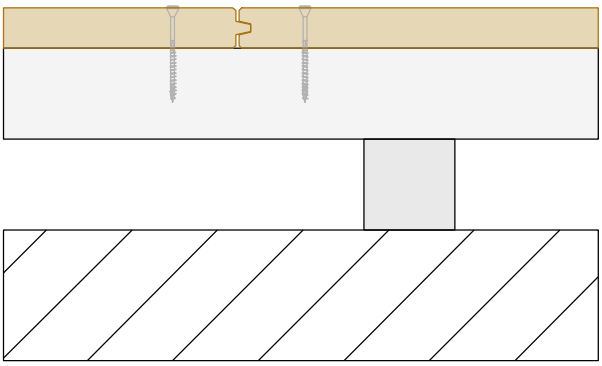


ANCHORING WITH SCREWS
5 x 60 mm by 312 mm

1:5

VERTICAL JOINT:



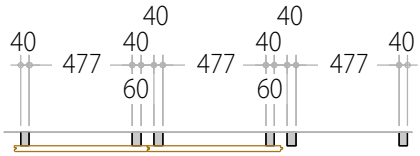
ANCHORING USING TERRACE SCREWS
5 x 60 mm

1:5

ANCHORING USING SPECIFIC SCREWS MUST BE ASSESSED BY A STRUCTURAL ENGINEER

1.5. VERTICAL DIRECTION OF THE FIBERS, TONGUE AND GROOVE

FLOOR PLAN



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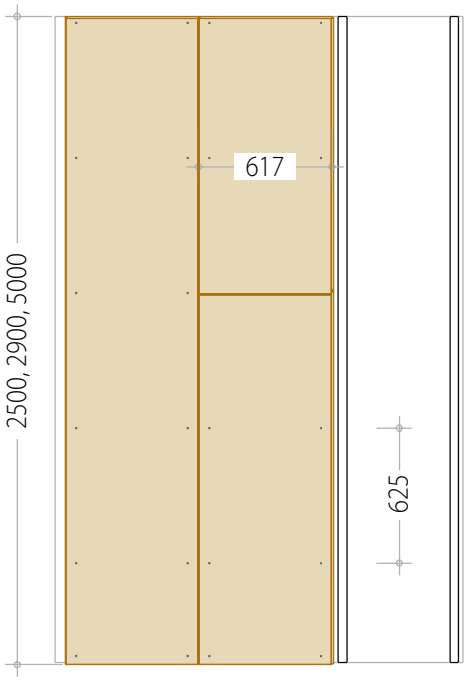

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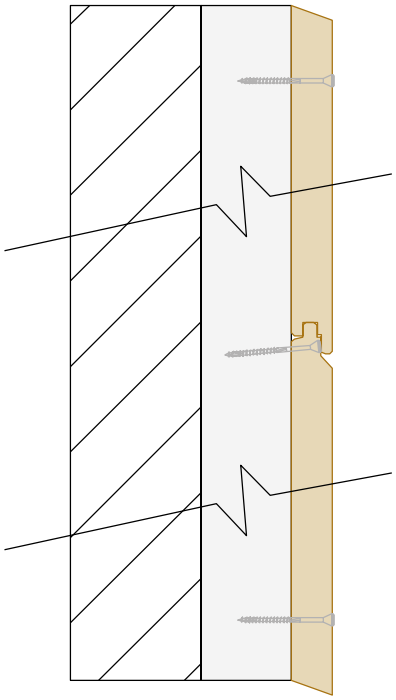

ANCHORING WITH SCREWS
5 x 60 mm by 312 mm

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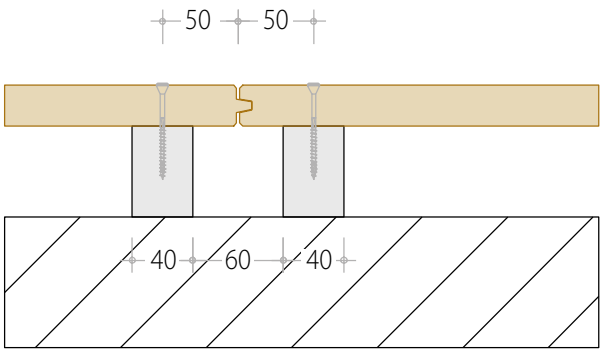
VERTICAL JOINT:



ANCHORING USING SCREWS WITH WASHERS
5 x 60 mm

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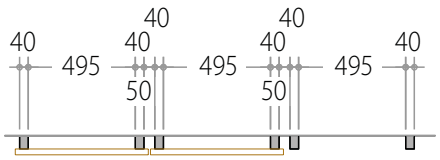
ANCHORING USING SPECIFIC SCREWS MUST BE ASSESSED BY A STRUCTURAL ENGINEER

1.6. VERTICAL DIRECTION OF THE FIBERS, BUTTED

FLOOR PLAN



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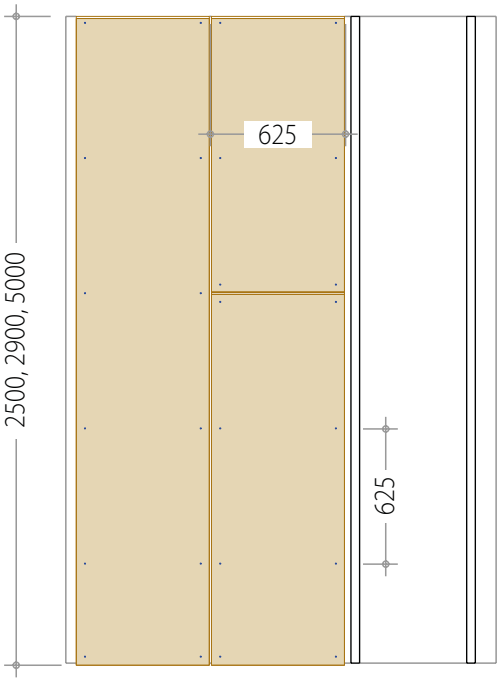

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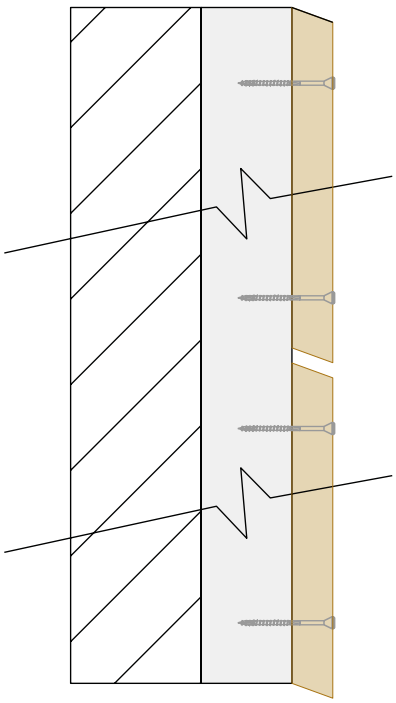
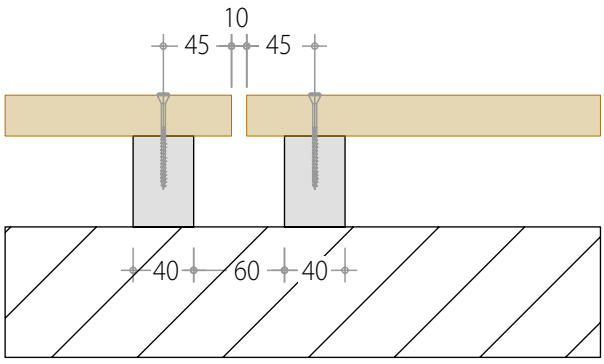
HORIZONTAL JOINT:



ANCHORING WITH SCREWS
5 x 60 mm by 625 mm

1:5

VERTICAL JOINT:



ANCHORING USING SCREWS WITH WASHERS
5 x 60 mm

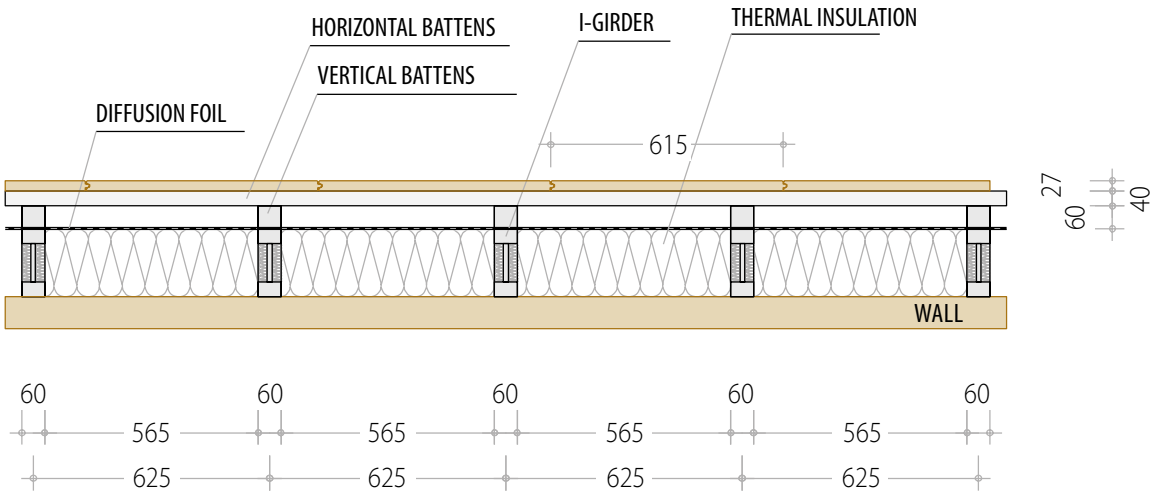
1:5

ANCHORING USING SPECIFIC SCREWS MUST BE ASSESSED BY A STRUCTURAL ENGINEER

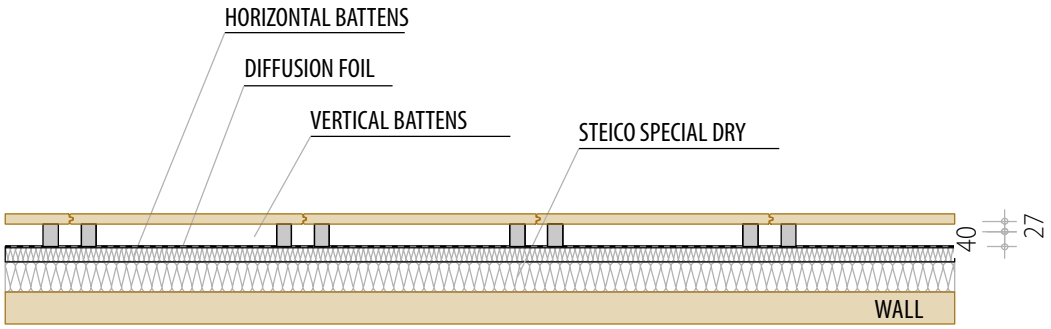
2. TYPES OF STRUCTURE AND BASE

2.1. EXAMPLE OF FOUNDATION ON I-GIRDERS

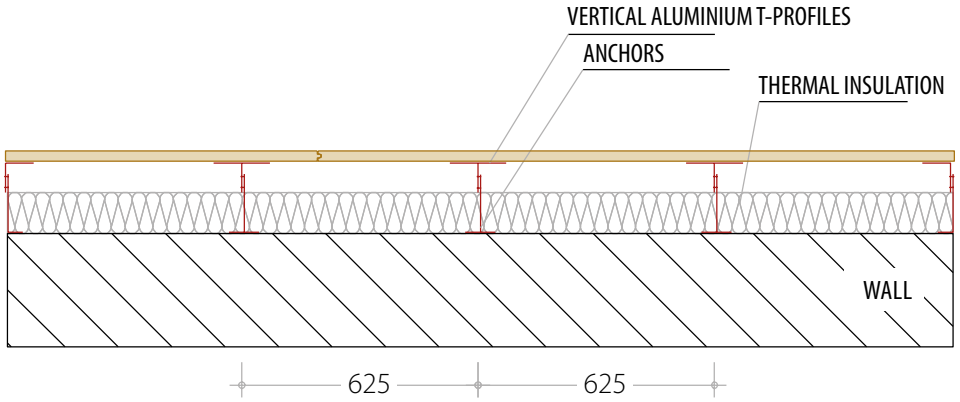
SWP 615 mm



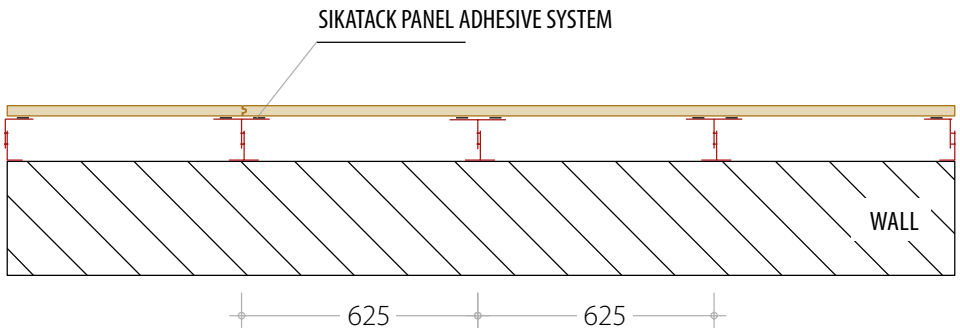
2.2. EXAMPLE OF FOUNDATION ON HARD INSULATION USING ADDITIONAL HORIZONTAL BATTENS



2.3. EXAMPLE OF FOUNDATION ON STEEL PROFILES

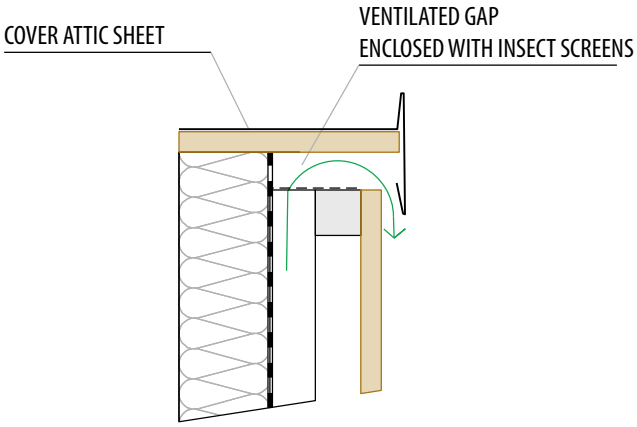


2.4. EXAMPLE OF FOUNDATION ON METAL PROFILES, ANCHORING BY GLUING

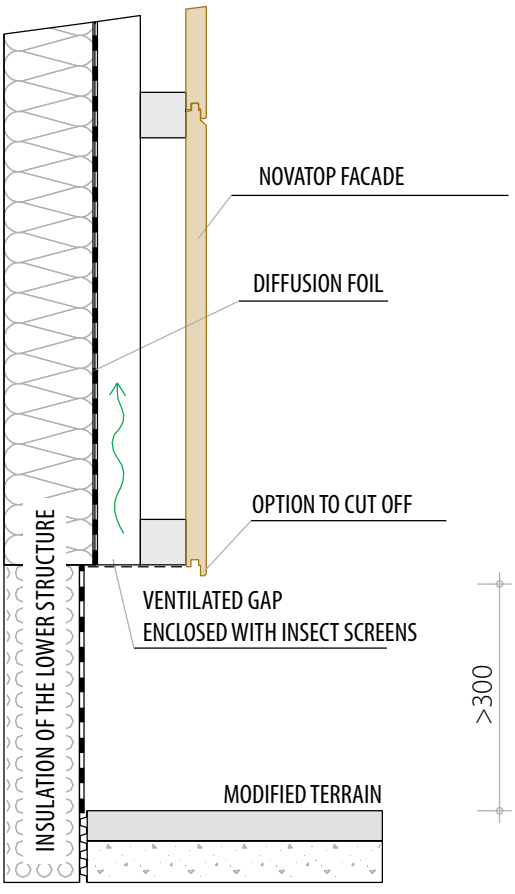


3. STRUCTURAL DETAILS

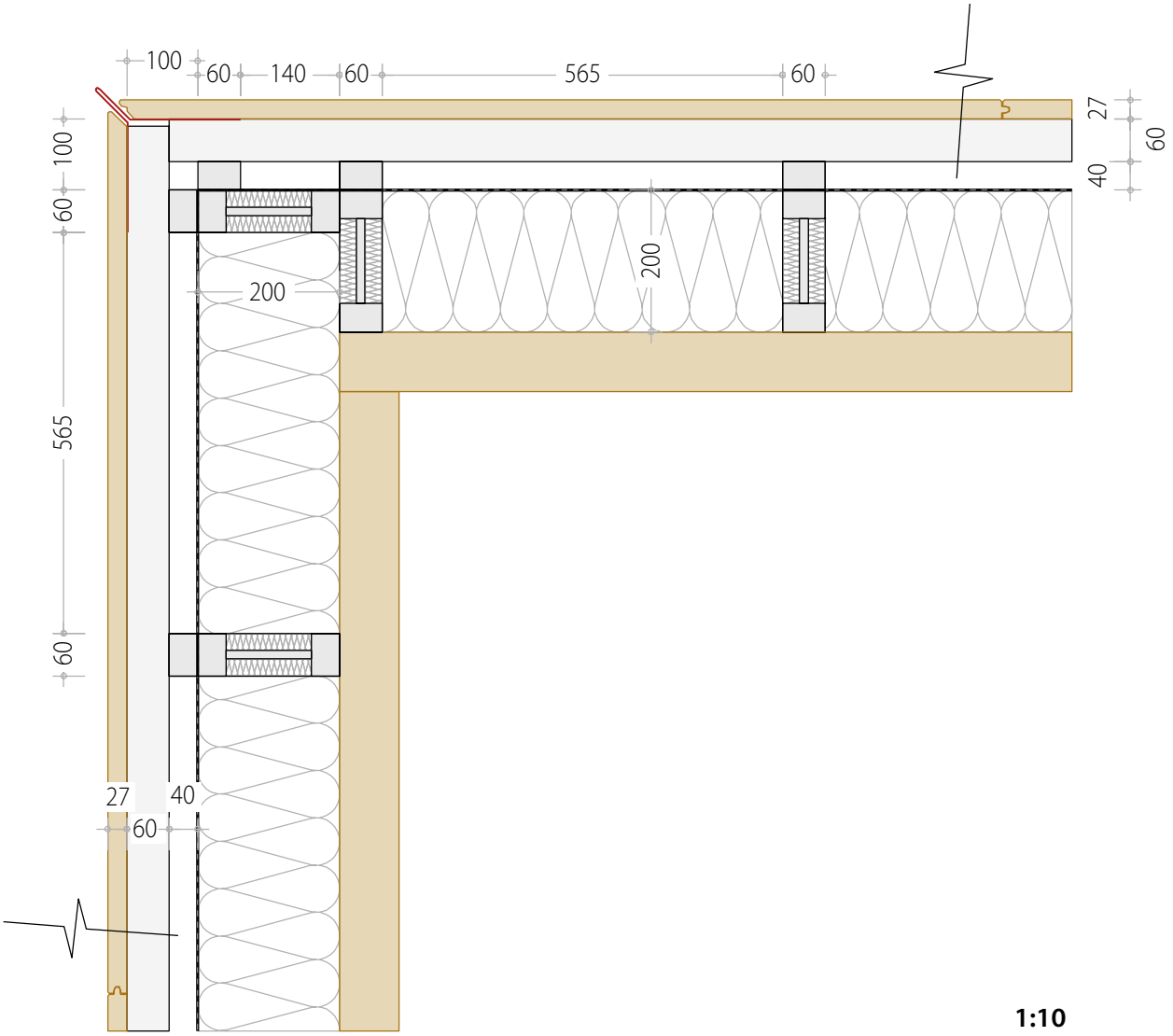
3.1. EXAMPLE OF ATTIC SOLUTION



3.2. EXAMPLE OF PLINTH SOLUTION

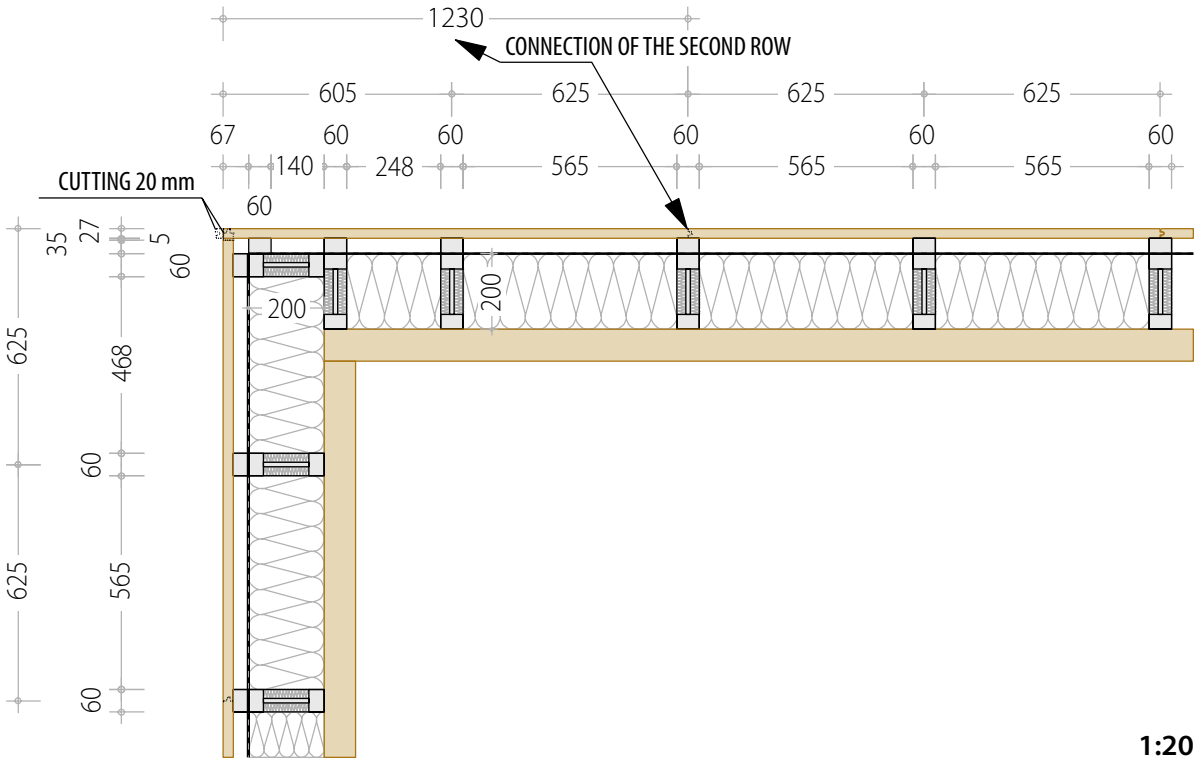


3.3. EXAMPLE OF CORNER JOINT EXECUTION, WITH CORNER METAL SHEET, TONGUE AND GROOVE



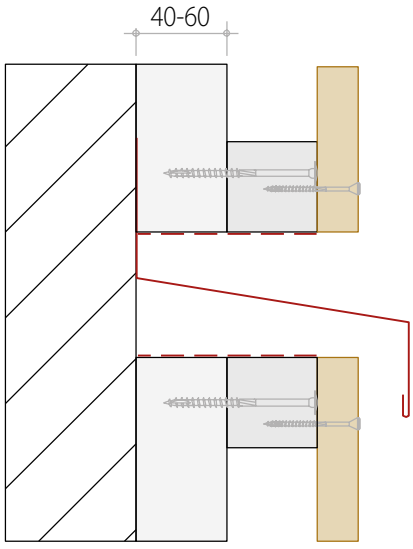
1:10

3.4. EXAMPLE OF CORNER JOINT EXECUTION, BUTTED CORNER, TONGUE AND GROOVE



1:20

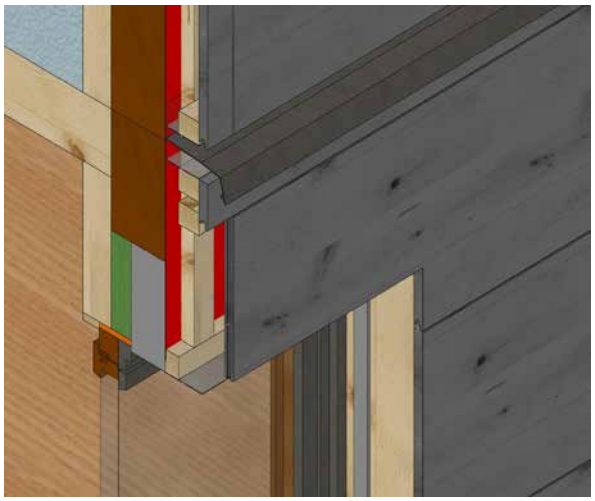
3.5. EXAMPLE OF HORIZONTAL FLOOR DIVISION



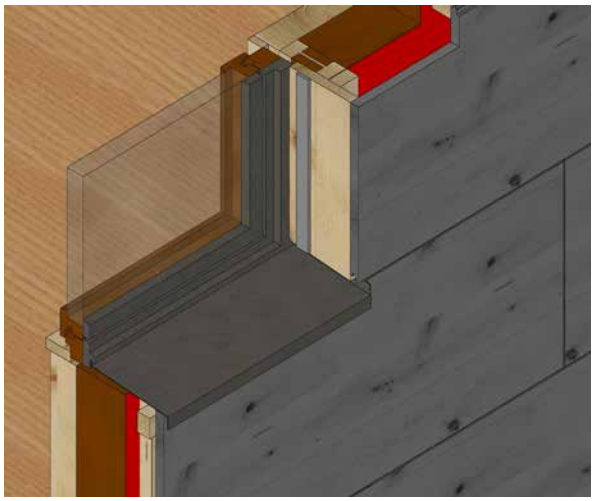
ANCHORING WITH SCREWS
5 x 60 mm á 312 mm

1:5

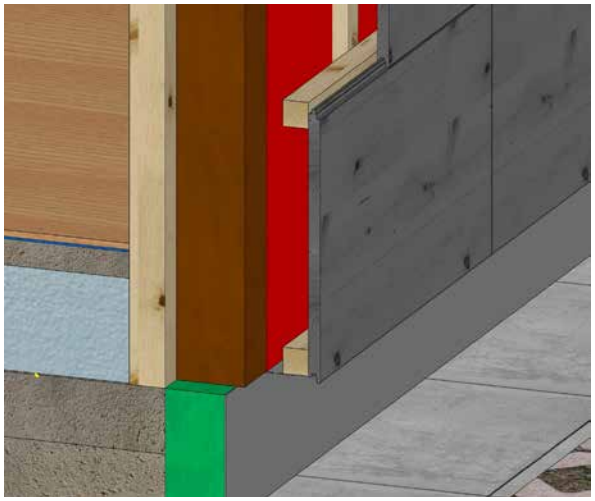
3.6. DETAIL OF THE CAPPING



3.7. DETAIL OF THE WINDOWSILL AND THE DOOR



3.8. DETAIL OF THE PLINTH



CUTTING EDGE PROTECTION

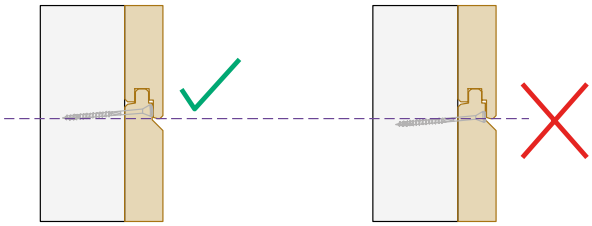
We recommend painting the sawn edges during installation on the construction site:
- 1x ADLER Lignovit Lasur coating
- 1x ADLER Aquawood Intermedio ISO
- 1x ADLER Lignovit Platin coating

If the edge is well ventilated and 100% resistance is not required, it is possible to paint only 2x ADLER Lignovit Platin in the given colour. or Pullex 3in1-Lasur in the specific shade. For deliveries, we offer glazing paints in 0.75/2.5 l packaging.

4. SCREWS

Anchoring of panels with 5 x 50–70 mm screws depending on the application. The service life and load-bearing capacity of the screws in the application is guaranteed by the screw manufacturer.

Screws in the tongue:



Recommended types of screws:

Screws in the surface:

NOVATOP FACADE ASSEMBLY INSTRUCTION

The assembly instructions contain basic information and recommendations. Responsibility for the correct execution is assumed by the implementing company that complies with the current technical standards.

1 ASSEMBLY TOOLS

- Screws
- Drills, screwdrivers, measuring tools, carpenter's squares, flat squares.
- Bars for delimiting the dilatation joint between the panels.
- Ladders, lifting platforms, mobile scaffolding
- The recommended number of workers: min. 2

2 SAFETY IN THE WORKPLACE

When handling the panels, it is necessary to:

- Thinking about the procedure, the necessary tools and materials, the method of handling and the number of workers for the assembly.
- Comply with all occupational safety measures.
- Use protective equipment.
- Extreme care must be exercised when working at heights and on lifting platforms.
- Secure the panels against falling or mechanical damage.

3 GENERAL INFORMATION

- NOVATOP FACADE panels should be machined with all standard woodworking tools and machines and their surface can be treated by conventional procedures as for solid wood.
- Carefully follow the principles of structural wood protection.
- When working, wear gloves to avoid contaminating the panels and to prevent injury.

We do not recommend:

- Treading on visual surfaces or otherwise polluting them.
- Exposing the panels to direct sunlight before proper surface treatment, this will prevent possible colour changes and differences.

4 ASSEMBLY

Before assembling the substructure, we recommend creating a plan for laying the panels and the substructure.
The assembly description begins with the supporting structure for the facade (wall, prisms, profiles…).

- Preparation of instruments and materials
- Preparation of scaffolding / platforms
- Substructure preparation: alignment, cleaning, possible application of diffusion foil.
- Machining, formatting of panels, indication of anchoring positions, etc.
- Surface treatment of any panel cuts: We recommend performing this in advance with each machining, and we also recommend performing a double-sided surface treatment if it is not performed by the manufacturer.
- Photo documentation (passages, punctures, installations).
- Preparation of potential sheeting.
- Installation of NOVATOP FACADE panels:
  - Creating a threshold.
  - Placement of the spacer in the future groove.
  - Adaptation to window and other openings.
  - Fitting the panel and fixing it in its position (with clamps or holding).
  - Optional insertion of sheeting.
  - Anchoring.

  After attaching the panel, checking the flatness and accuracy of the attachment – after checking the attachment with the remaining fasteners (the number and type of fasteners depends on the recommendation and calculation regarding the statics).
- Continuing with other panels (after installation, take care not to damage the panels already installed).
- Installation of cover grills of the ventilated gap (or the installation is to be performed concurrently with the panel).
- Inspection of dilatation joints, flatness, compliance with design principles, etc.

5 STORAGE

- The panels must be stored in a dry place and protected from the weather.
- The panels must be stored on hard and flat surfaces with the possibility of secure access and manipulation.
- Disposal of packaging materials must be carried out in accordance with the local regulations and directives on waste management.

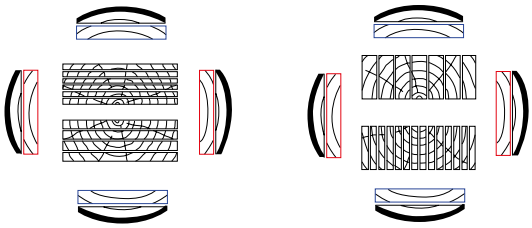
NOVATOP panels **have been distinguished by their craftsmanship** since 1992

Simply a better panel

9 benefits for you

1 Dimensional stability and high strength of the panel
2 Elimination of surface cracks
3 Natureplus certification
4 No need to sort the panels
5 Smaller offcut due to the flexibility of formats
6 Uniform quality for many applications
7 Less risk of complaints
8 Saving you time and money
9 Maximum satisfaction for your customers

Exclusively central timber



Surface lamellas

Central lamellas

- For the production of all lamellas, we use only central timber from the trunk, thicknesses of 18–25 cm, which is characterized mainly by small and healthy knots
- We sort the lamellas according to internal regulations, which go beyond required standards
- Surface lamellas are always tangential
- The central lamellas are always radial
- We discard the unplaned lamellas and use them for heating the dryers

Compact centre and panel section

- For the centres, we only use radial lamellas with a width of max. 63 mm (usually 37 mm – 59 mm)
- We glue all the central lamellas in the joints
- We repair the middle layers
- The middle layer is compact and closed
- We perform the output inspection personally

NOVATOP FACADE TECHNOLOGY

Minimization of cracks and manual repair of defects

- We dry the timber to 7–8%
- We always assemble the surface lamellas with the right side up on the visual side of the panel
- We glue the surface lamellas in joints by means of high side down pressure
- We repair qualities A, B, C+
- We only use natural knots from branches of our own production

Gluing

- We glue using melamine adhesive
- PVAC gluing on request (100% formaldehyde-free) or PU

High formatting accuracy

- As a standard, we guarantee high accuracy of the basic format +/-2 mm diagonally
- On request, we perform formatting and machining on CNC machines with an accuracy of 0.1 mm

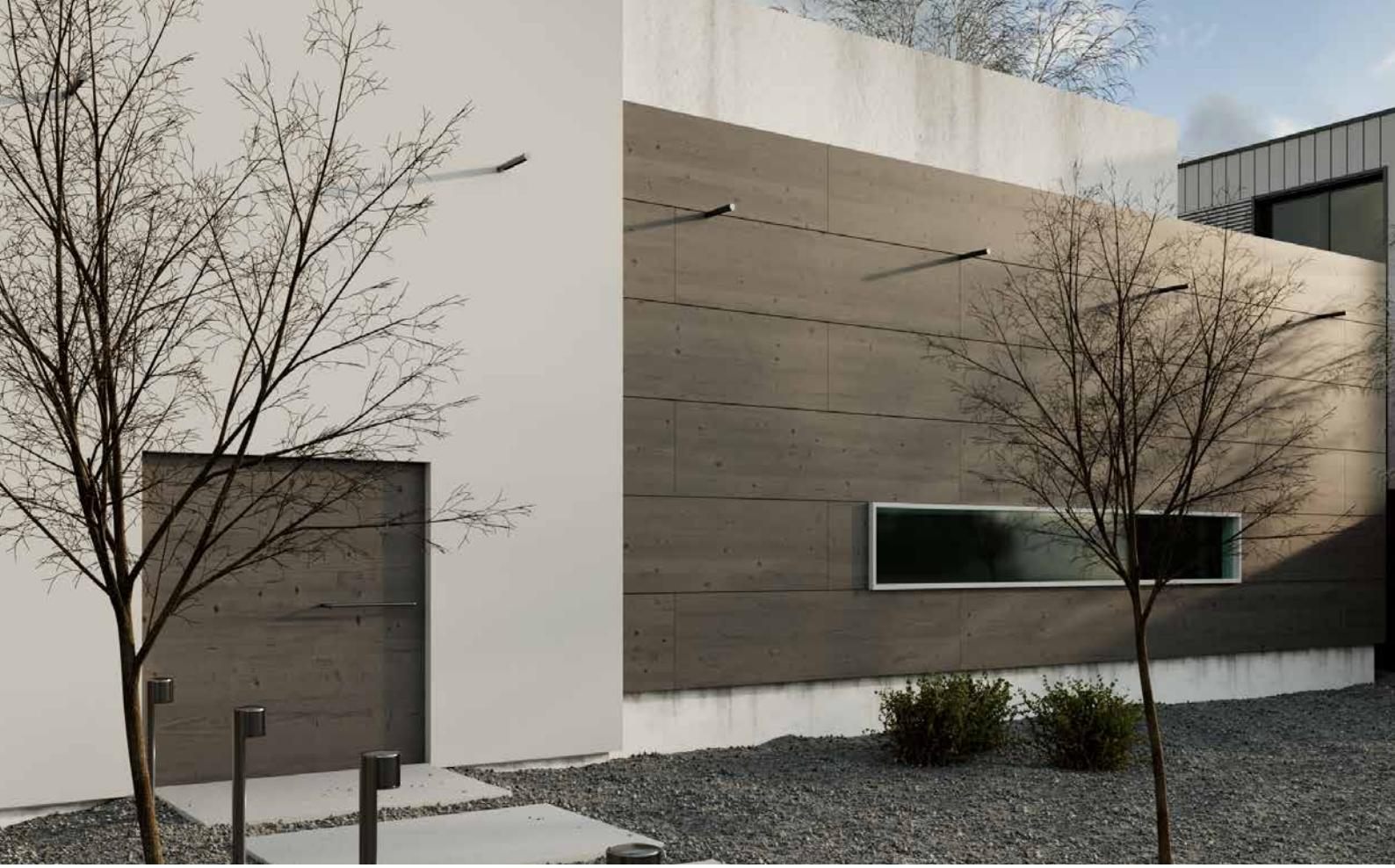
Exceptional sanding quality

- Quality of sanding corresponds to the grain size of 100
- We guarantee sanding tolerance of +/-0.2 mm

NOTES

CONTENT

INDIVIDUAL FACADE PROJECTS – NOVATOP SWP



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Manufacturer certificates:

V: 01/26