



NOVATOP EASY BOARD  
Technical documentation

# ON-LINE SUPPORT

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Product



Technical  
documentation



Certificates

# NOVATOP EASY BOARD

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**Warning:**

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**Warning:**

You can find the current technical documentation on the website in downloads section.

## CONTENTS

## 3-layer panel with a spring, a groove and a chamfered edge

<b>Requirements</b>	EN 13353, EN 13986
<b>Operation classes</b>	SWP/1, SWP/2, SWP/3 according to EN 13353
<b>Types of trees</b>	local spruce, fir
<b>Gluing</b>	AW100 according to DIN 68705, SWP/3 according to EN 13354, D4 according to EN 204
<b>Glue</b>	PVAC, Melamine adhesive
<b>Quality</b>	Spruce: B/C, C/C, C/D (Glue: PVAC, Melamine glue) Fir: AB/B, AB/C (glue: PVAC)
<b>Standard thicknesses (mm)</b>	19 (6-7-6), 27 (9-9-9)
<b>Standard formats (mm)</b>	Gross: 625 x 2500, 625 x 3000, 1250 x 2500, 1250 x 3000, 1250 x 5000, 1250 x 6000 Net: 615 x 2490, 615 x 2990, 1240 x 2490, 1240 x 2990, 1240 x 4990, 1240 x 5990
<b>Dimensional tolerance</b>	Machining tolerance in the thickness of $\pm 0.2$ mm Tolerance of sanding thickness of $\pm 0.2$ mm Width and length tolerance of $\pm 0.5$ mm
<b>Surface</b>	Sanded – K 50, 100
<b>Humidity</b>	spruce, fir $8 \pm 2$ %
<b>Density</b>	spruce, fir, approx. 490 Kg/m <sup>3</sup>
<b>Formaldehyde emission class</b>	E1 according to EN 717-1, EN16516 for values refer to the test reports
<b>Reaction to fire</b>	D-s2, d0 according to EN 13 501-1
<b>Design value of thermal conductivity (<math>\lambda</math>)</b>	0.13 W/mK, at a density of 490 kg/m <sup>3</sup> according to EN 12524 – spruce, fir
<b>Factor of diffusion resistance (<math>\mu</math>)</b>	200/70 (dry/wet) according to EN ISO 10456
<b>Sound absorption</b>	250 – 500 Hz – 0,1 1000 – 2000 Hz – 0,3
<b>Airborne sound insulation (dB)</b>	$R = 13 \times \log(m_a) + 14$ $m_a$ – surface weight kg/m <sup>2</sup>
<b>Specific heat capacity (<math>c_p</math>)</b>	1,600 J/kgK according to EN ISO 10456

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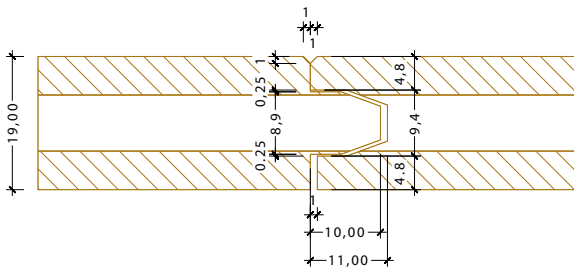
5

# NOVATOP EASY BOARD MACHINING DETAILS

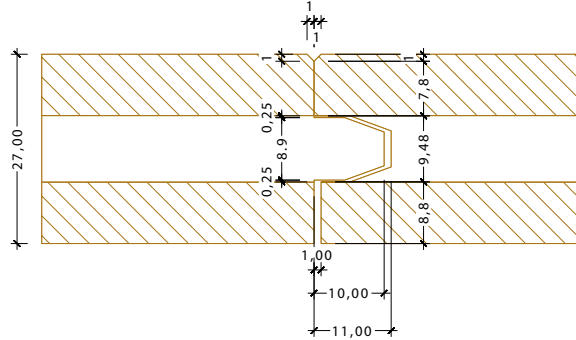
CONTENTS

## Machining of edges – 4 sides

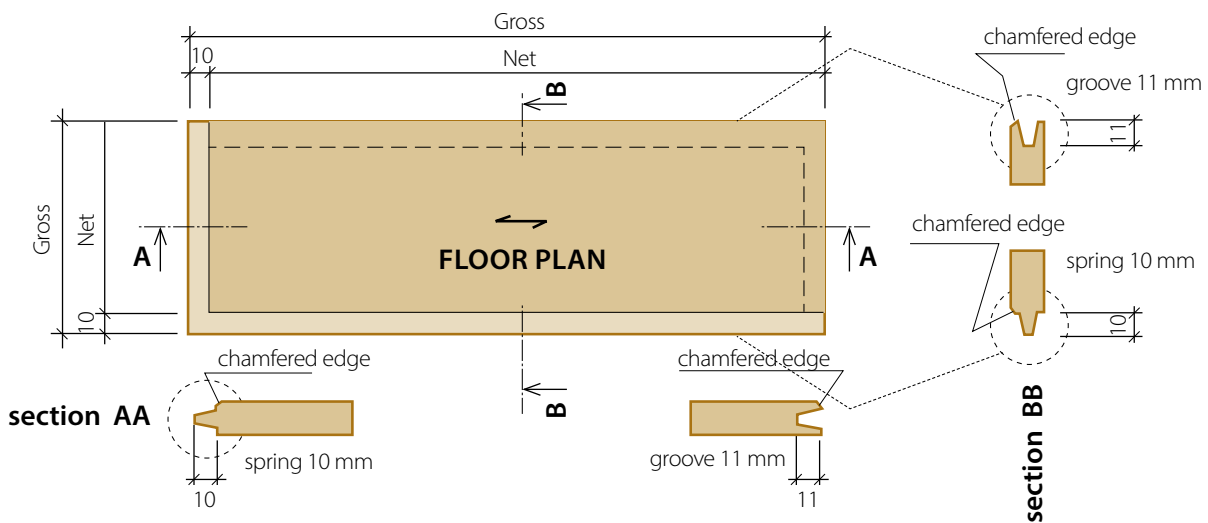
EASY BOARD 19 mm



EASY BOARD 27 mm



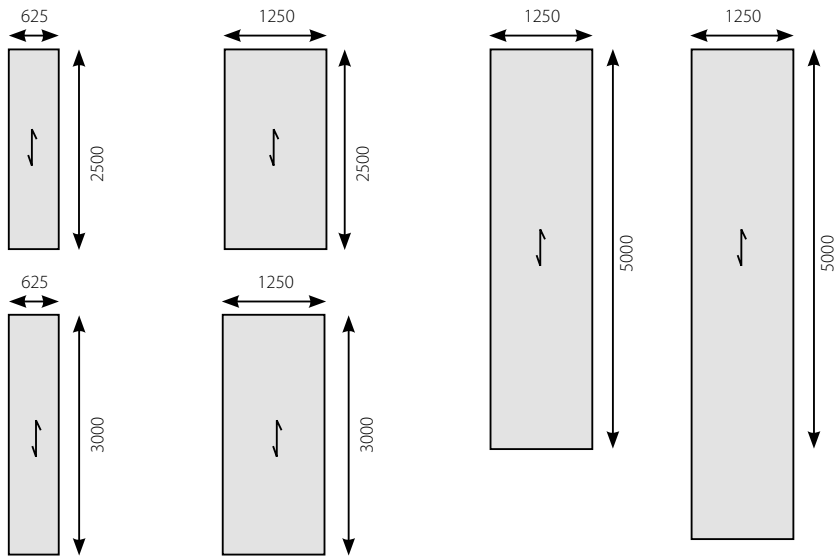
Industrial design registration number: 015020522-0001



Machining tolerance in the thickness of  $\pm 0.2$  mm  
Tolerance of sanding thickness of  $\pm 0.2$  mm  
Width and length tolerance of  $\pm 0.5$  mm

# NOVATOP EASY BOARD STANDARD FORMATS

CONTENTS



Gross: 625 x 2500, 625 x 3000, 1250 x 2500, 1250 x 3000, 1250 x 5000, 1250 x 6000  
Net: 615 x 2490, 615 x 2990, 1240 x 2490, 1240 x 2990, 1240 x 4990, 1240 x 5990

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# NOTES

Grid of dots for writing notes.

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CONTENTS

## Wood



Spruce, B quality



Spruce, C quality



Fir, AB quality



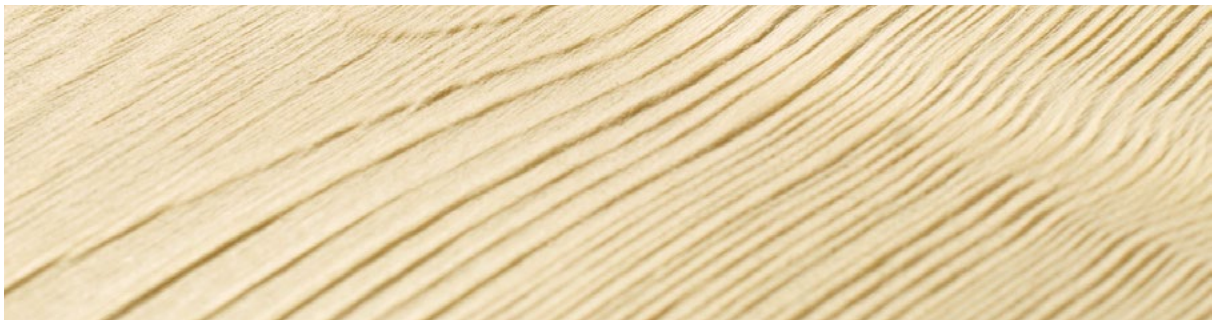
Quality  
sampler

For quality specifications see the internal regulations of  
AGROP NOVA a.s.

## Brushing

Wood: spruce, fir

Brushing highlights the structure of the wood.



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# NOVATOP EASY BOARD DRILLED PROFILES

CONTENTS

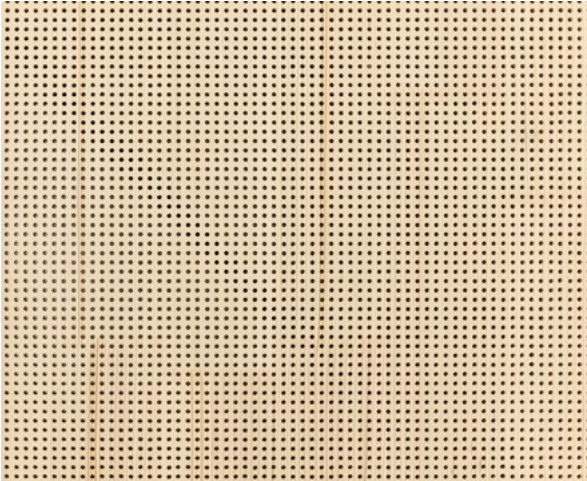
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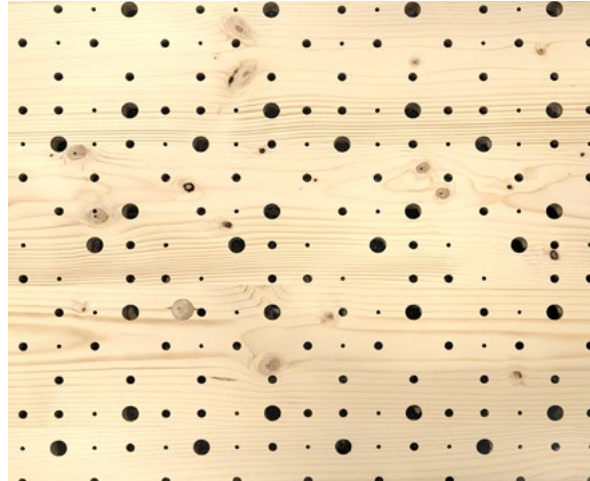
3

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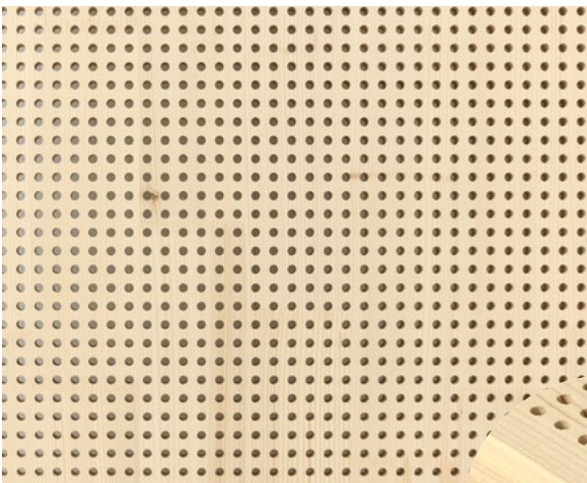
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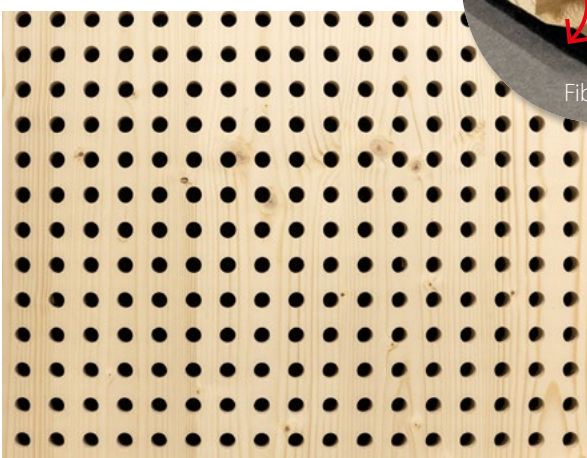
Profile 4/8-8



KATY – random drilling of  $\varnothing$  4, 8, 16 mm



Profile 8/16-16



Profile 16/32-32

S/L Profile – visual side: the 4/12 grooving,  
non-visual side: the 16/32-32 drilling

Drilled profiles can be supplemented with a black Fibertex absorber of 450 g on the non-visual side.

## CONTENTS

1

## Surface finishes

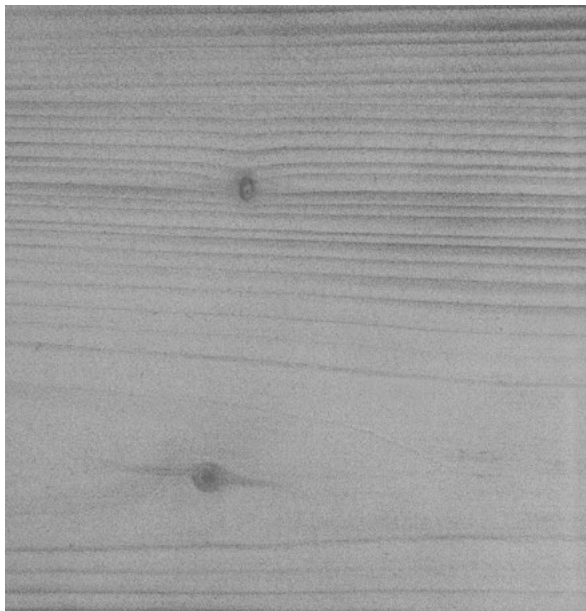
Surface treatments for the interior and covered exterior. As standard, we use Adler Interior UV 100, Remmers Induline Sherwin and Koch&Schulte glazing paints. Other surface treatment options on the individual demand.



natural



white with a smaller proportion of pigment



grey



white with a greater proportion of pigment

2

3

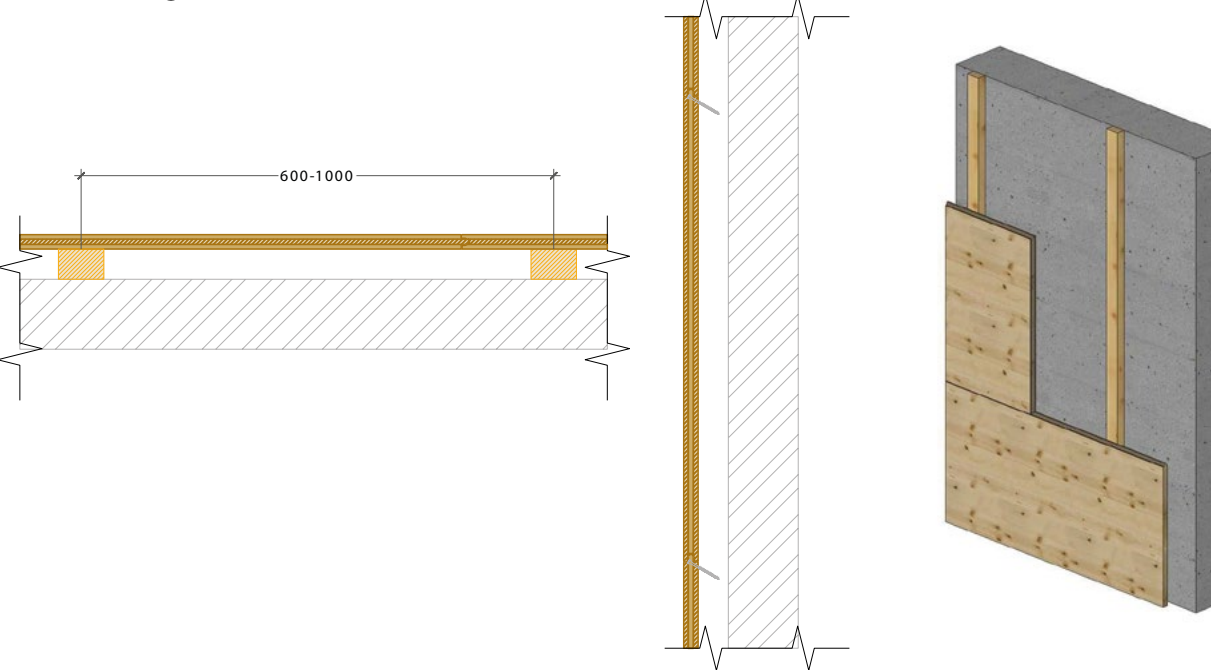
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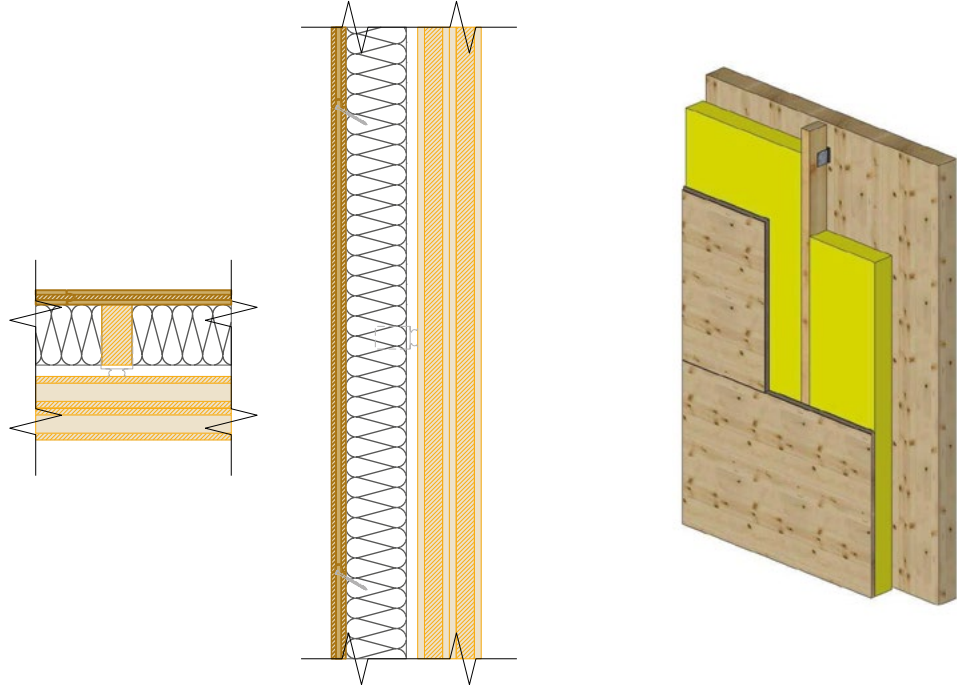
# NOVATOP EASY BOARD EXAMPLES OF APPLICATION

CONTENTS

## Wall cladding



## Pre-walls

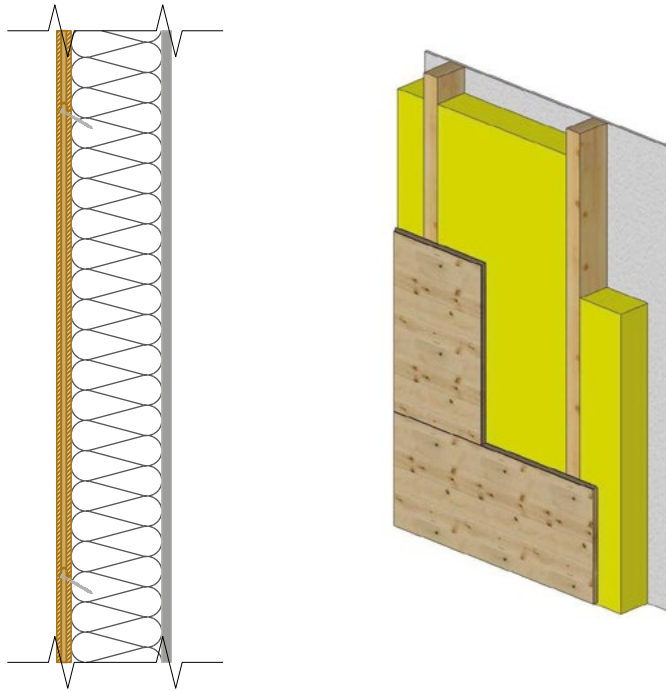




CONTENTS

1

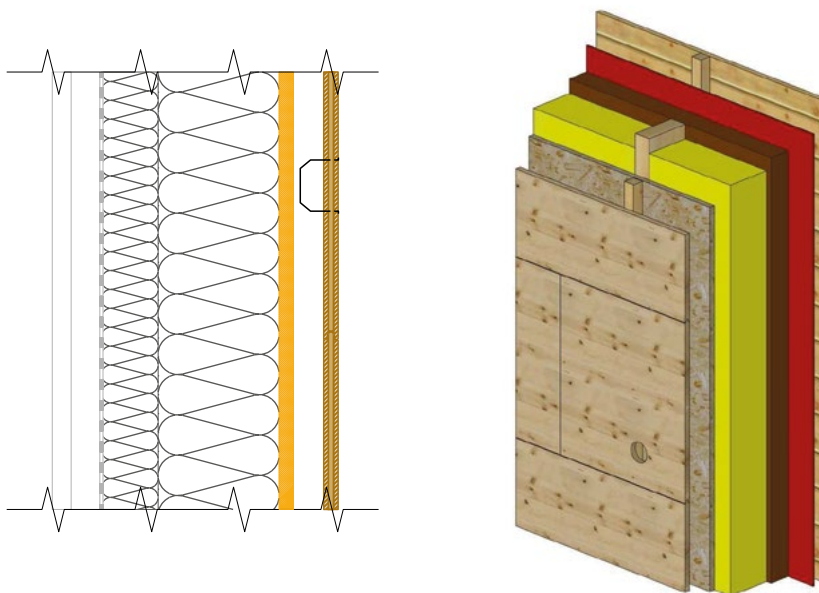
## Cladding of frame structures – internal walls



2

3

## Cladding of frame structures – external walls



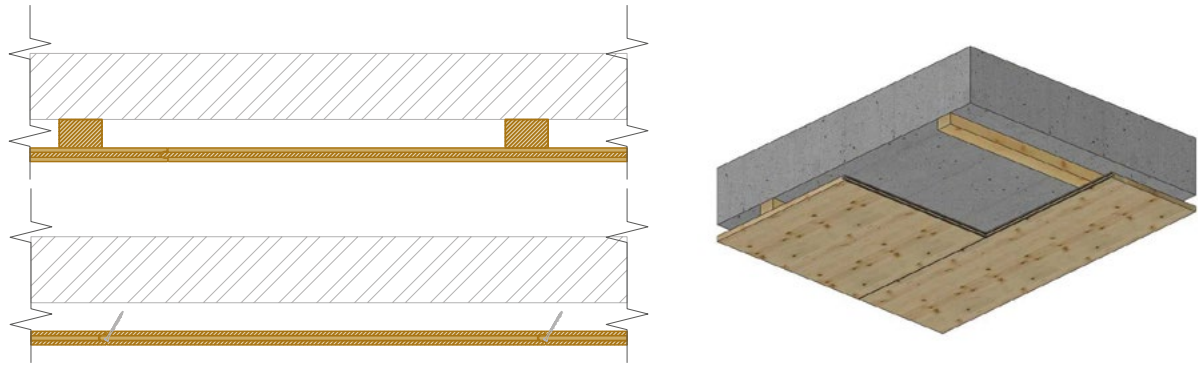
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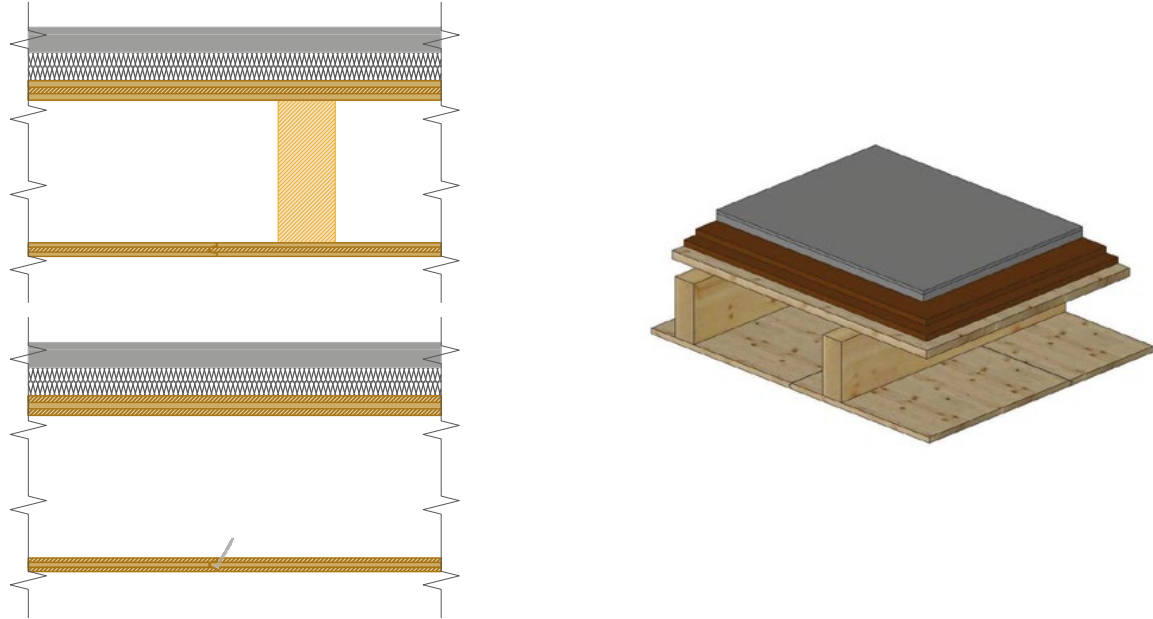
# NOVATOP EASY BOARD EXAMPLES OF APPLICATION

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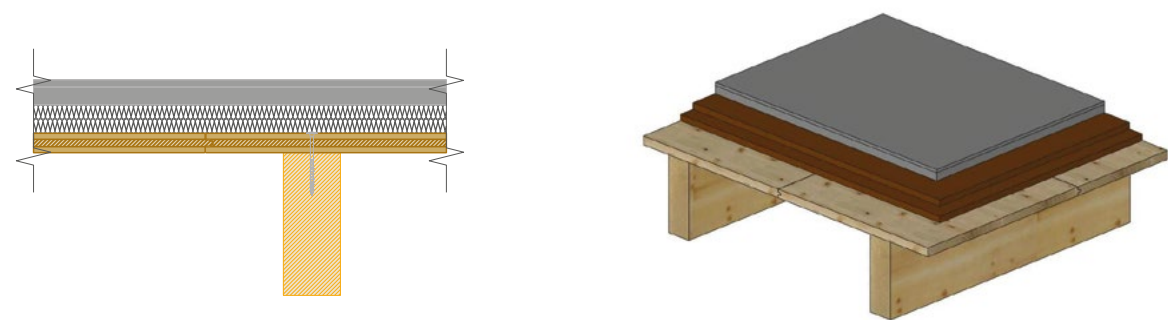
## Solid ceiling cladding



## Wooden ceiling cladding

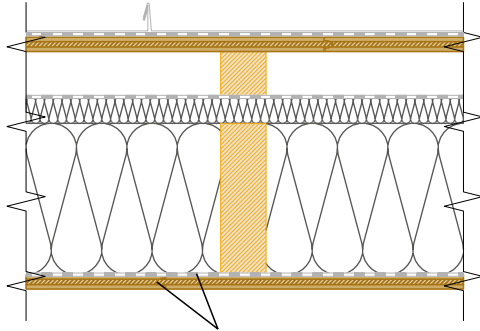


## Ceiling decking

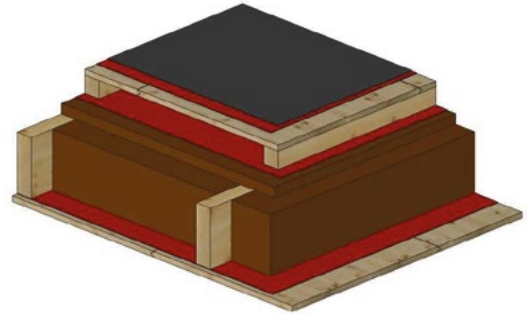


CONTENTS

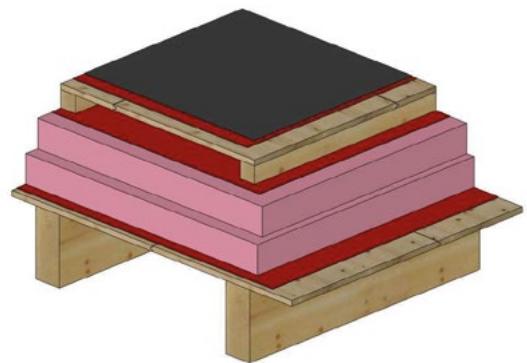
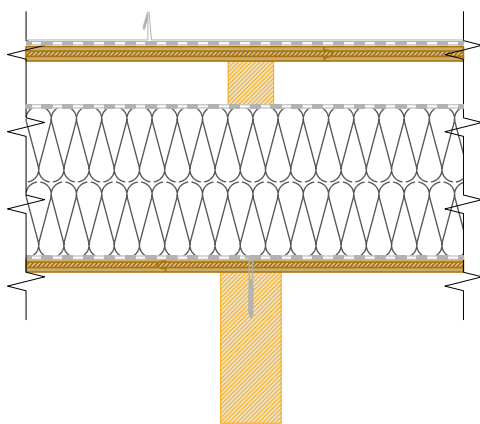
1 Clapboarding of the roofs



use of airtight foil or airtight execution of the joint



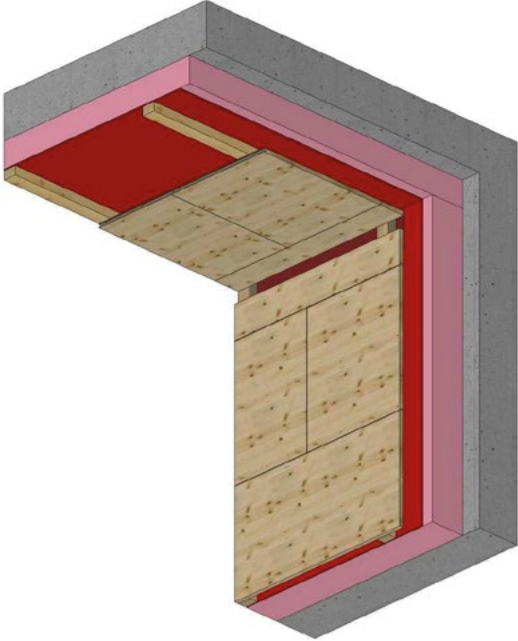
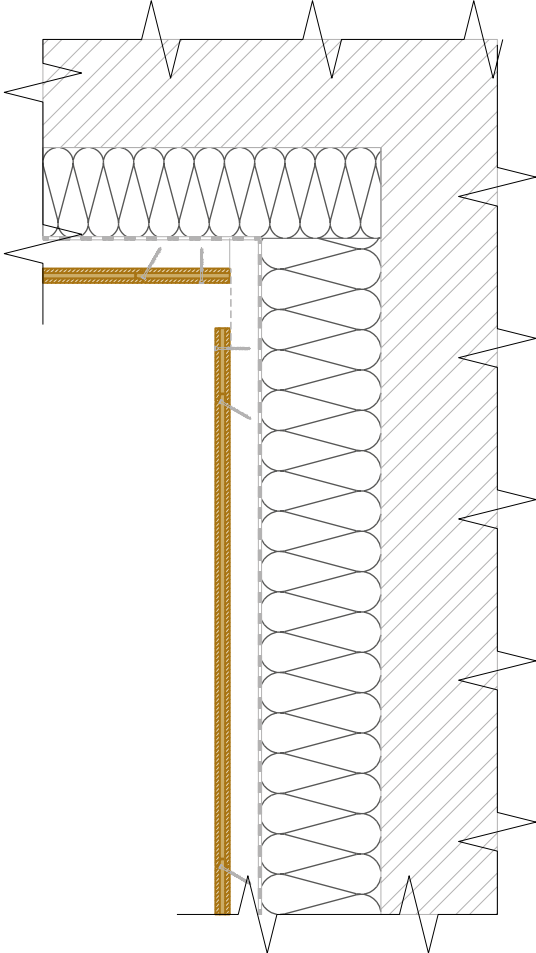
3 Roof decking



# NOVATOP EASY BOARD EXAMPLES OF APPLICATION

CONTENTS

## Cladding of the covered exterior



1

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# NOVATOP EASY BOARD CHARACTERISTIC PROPERTIES

CONTENTS

Characteristic values of panels SWP/1 SD, SWP/2 SD, SWP/3 SD in N/mm<sup>2</sup>

Panels with butted joints in the middle layer

Type of panel	19 (6-7-6)	27 (9-9-9)
Number of layers	3	3
Thickness [mm]	19	27
Thickness of surface lamellas [mm]	6,0	9,0
Thickness of central lamellas [mm]	7,0	9,0

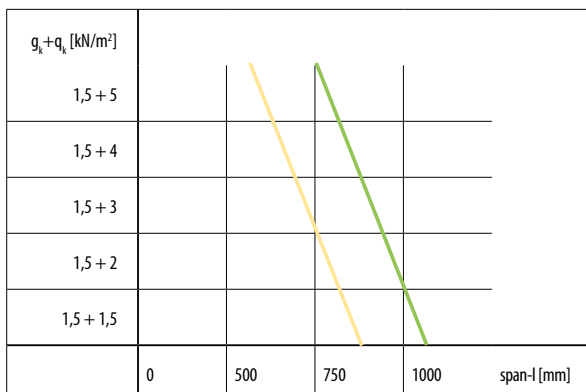
Stress perpendicular to the panel plane [N/mm<sup>2</sup>]

$f_{m,0,k}$	Bending strength parallel to the fibres of the outer layers	33,1	28,9
$f_{m,90,k}$	Bending strength perpendicular to the fibres of the outer layers	3,3	3,1
$E_{m,0}$	Modulus of elasticity parallel to the fibres of the outer layers	10900	11100
$E_{m,90}$	Modulus of elasticity perpendicular to the fibres of the outer layers	450	400
$f_{v,k}$	Shear strength	1,1	
<b>G</b>	Shear modulus of elasticity	90	

Stress in the panel plane [N/mm<sup>2</sup>]

$f_{m,0,k}$	Bending strength parallel to the fibres of the outer layers	19,3	20,3
$f_{m,90,k}$	Bending strength perpendicular to the fibres of the outer layers	5,8	5,3
$f_{t,0,k}$	Tensile strength parallel to the fibres of the outer layers	12,9	13,6
$f_{t,90,k}$	Tensile strength perpendicular to the fibres of the outer layers	3,9	3,6
$f_{c,0,k}$	Compressive strength parallel to the fibres of the outer layers	19,3	20,3
$f_{c,90,k}$	Compressive strength perpendicular to the fibres of the outer layers	5,8	5,3
$f_{v,k}$	Shear strength	3,0	
$E_{m,0}$	Modulus of elasticity parallel to the fibres of the outer layers	7400	7800
$E_{m,90}$	Modulus of elasticity perpendicular to the fibres of the outer layers	2250	2050
<b>G</b>	Shear modulus of elasticity	600	

Load diagram



Girder of a single field:  
Load perpendicular to the panel plane and transversally to the fibre direction of the surface layer.

19

27

# NOVATOP EASY BOARD OTHER

## CONTENTS

### Packaging

As a standard, NOVATOP EASY BOARD panels are packed in PE foil with special edge protection and reinforcement to prevent damage during transport and handling.

Standard packaging: 48 or 32 pcs.



### Storage

The multi-layer panels must be stored in closed and dry areas, placed horizontally on each other and supported by bases with the spacing of approximately 1 m, and, after the removal of the protective casing, preferably with a different sheet material, e.g. P, MDF...

#### Warning

Improper storage may result in damage, for which the producer assumes no liability. The panels must be at all times protected against adverse weather conditions.

### Processing

The multi-layer panels (SWP) are processed from solid wood; the moisture content at dispatch is  $8\% \pm 2\%$ . Wood properties of this product are maintained, so it responds to changes in temperature and humidity by shrinking or, possibly, by swelling. As a result of poor storage and use in extreme temperatures and humidities, crack formation and warping may occur before processing. The panels can be machined with all standard woodworking tools and machines and their surface can be treated by conventional procedures as solid wood can. When SWP is used in the outdoor environment, the natural properties of solid wood must be taken into account.

### Handling

The packages are suitable for handling by front or side loaders and cranes.

### Transport

As a standard, the panels are transported in lorries (covered semi-trailers).

#### Warning

During longer transport under adverse climatic conditions, a change in the moisture of the panels may occur; that is why we recommend acclimatisation before their processing.

Wood properties of this product are maintained, so it responds to changes in temperature and humidity by shrinking or, possibly, by swelling. Improper storage and use in extreme conditions (extreme temperatures and humidity) can cause cracking and deformations. The producer assumes no liability for the damage of the product due to improper storage, processing, unsuitable use or nonobservance of work procedures during the assembly.

The manufacturer guarantees the formaldehyde emission values specified in the data sheets only with closed surface panels. As a result of drilling or milling off of the upper lamellas, the formaldehyde emission values may increase. Wood dust comes into existence while machining.

## NOVATOP panels have been distinguished by their craftsmanship for 31 years

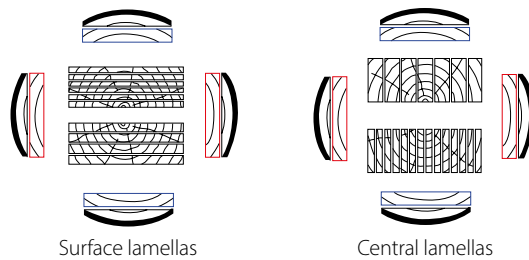
Simply a better panel



### 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



- For the production of all lamellas, we use only central timber from 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 the requirements of the standards
- Surface lamellas are always tangential
- The central lamellas are always radial
- We discard the unplanned lamellas and use them for heating the dryers

### Compact centre and panel section



- For the centres, we use mainly 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 EASY BOARD TECHNOLOGY

## CONTENTS

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 A, B, C qualities
- 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  $\pm 2$  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  $\pm 0.2$  mm

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# NOVATOP EASY BOARD ASSEMBLY INSTRUCTIONS

## CONTENTS

1

The assembly instructions contain basic information and recommendations.



 **YouTube**  
Video tutorial

### 1 RECOMMENDED APPLICATIONS

Interior: cladding of walls, ceilings, floors, etc.  
Covered exterior: covered roof, pergola soffits, etc.  
The panels can also be used as non-visual decking, specifically in worse quality.

### 2 STORAGE

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

### 3 SAFETY AT WORK

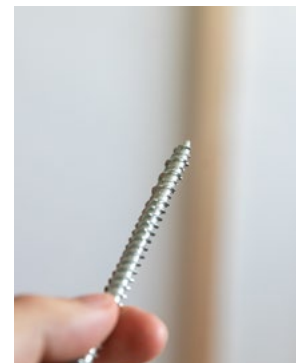
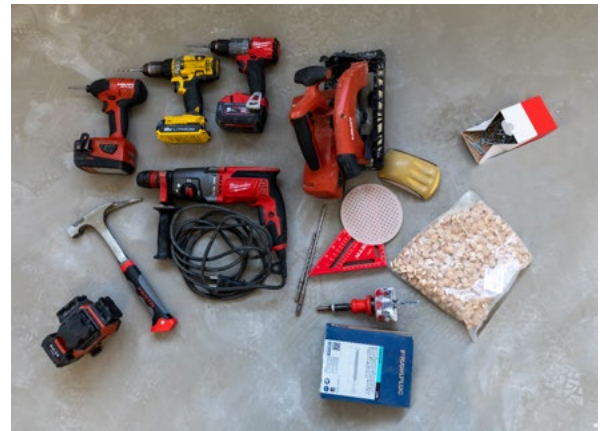
**When handling the panels, it is necessary to:**

- Follow all safety precautions.
- Use protective equipment. We recommend using gloves to prevent possible contamination of the panels and getting a splinter.
- Extreme care must be exercised when working at heights and on lifting platforms.
- Secure the panels against falling and mechanical damage.



### 4 RECOMMENDED TOOLS FOR ASSEMBLY

- Screws
- Drills, cordless screwdriver, air gun
- Spirit level, meter, carpenter's square,
- Sandpaper
- Glue, sealant
- Ladders, lifting platforms, scaffolding
- Wooden inserts, knots



a screw of 3.2 x 50

### 5 GENERAL INFORMATION

- Recommended number of people during assembly is at least 2
- We recommend installing the panels only after all "wet" and "dirty" processes on the construction site.
- The panels can be machined by conventional methods and with standard hand tools. The panels can be cut, drilled, sanded and surface treated in the same way as solid wood.
- We do not recommend treading on visual surfaces of the panels or otherwise polluting them.
- Polluted spots on the panels can be locally wiped with a damp cloth or rubbed with sandpaper.
- We do not recommend exposing the panels to direct sunlight. Exposing the panels before proper surface treatment will thus prevent possible colour changes and differences. If the panels are not coated from the factory, we recommend treating the visual side of the interior with a suitable surface treatment intended for solid wood (glazing paints, oils, waxes for the interior), which significantly increases resistance to dirt and UV radiation. The technological procedure is governed by the instructions of the manufacturer of the selected coating. Untreated wood naturally darkens.
- The recommended relative humidity of the environment in which the panels are installed is 55 % at 20 °C. As a result of low air humidity, cracks may appear in the wood.

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# NOVATOP EASY BOARD ASSEMBLY INSTRUCTIONS

## CONTENTS

### Before the installation, we recommend:

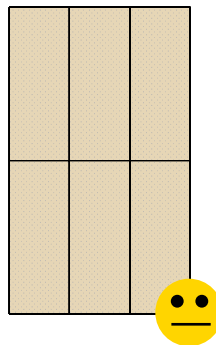
- Thinking about the procedure, the necessary tools and materials, the method of handling and the number of workers for the assembly.
- Thinking about the ideal panel format with regard to the optimized offcut and shape adaptation to window and other openings.
- Creating a plan for laying panels and structures
- Thinking about the position of wiring and prepare all entries and openings. (We recommend taking photos of passages and installations).
- Preparing an even and clean base. The battens are levelled with inserts and a spirit level.



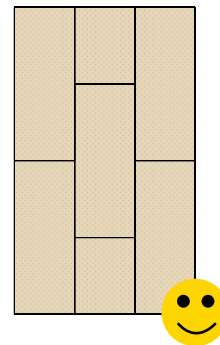
## 6 TYPES OF APPLICATIONS

- Horizontal and vertical structures.
- Types of applications, see examples of use p. 11–15.
- Panel connections should be set over, see the pictures. Connections that are not set over are more demanding as for accuracy and execution.

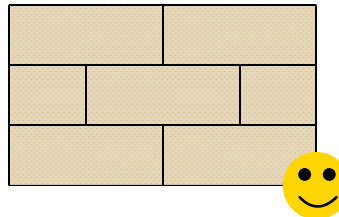
We do not recommend:



We recommend:



We recommend:



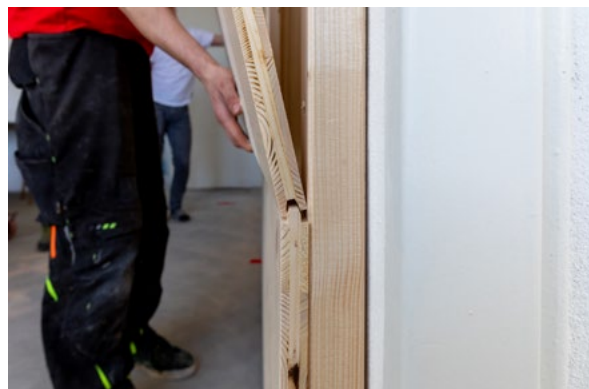
## 7 ASSEMBLY

1. When starting the assembly, it is necessary to pay attention to the quality of the foundation plane, because unevenness can be reflected in the joints of the next layer.
2. During the work, we constantly check for flatness.
3. The grid of the underlying structure, if it is not flat, is recommended in the range of 60–100 cm.
4. With applications on large areas, emphasis must be placed on proper foundation and fastening of individual panels.
5. It is recommended to sand or bevel the edges of each cut surface.
6. The first panel is installed and nailed or anchored using a screw at the base of the wall; the screw is then additionally covered with a floor/skirting bar.
7. The panels are anchored to the base with screws fitted into the spring (we recommend 3.5 x 50 mm). Their tightening needs to be done carefully so that the spring is not damaged when it is overtightened, and, on the contrary, it does not collide with the groove when it is undertightened.
8. After attaching the panel, it is necessary to check the flatness and accuracy of the attachment.
9. Continue with other panels; during installation, take care not to damage the panels that have already been installed.

# NOVATOP EASY BOARD ASSEMBLY INSTRUCTIONS

## CONTENTS

10. It is ideal to first lay the entire strip (for horizontal and vertical laying), then assemble the next row.
11. If the panel is not exceptionally loaded at the transversal joint, the transversal joint does not have to be at the grid. The longitudinal and transverse joints can both be outside the base.
12. If the panel is weakened by, for example, an opening, or if it needs to be attached outside of the spring in the surface, we recommend using wire: the opening is milled, a screw is inserted into the surface, the opening is then filled with a little knot and the surface is sanded.
13. To achieve maximum strength or wind bracing of the structure, it is possible to glue the panels both between the base and the panel, as well as in the spring and groove. However, here, watch out for the glue leaking onto the surface.
14. It is possible to drill openings for electrical boxes in the boards, mill grooves for e.g. LED lighting, and process them like ordinary wood. We recommend sanding the cut areas.
15. NOVATOP three-layer panels are airtight from a thickness of 19 mm. If the cladding is expected to be completely airtight, it is necessary to apply sealant to the back side of the groove to ensure the airtightness of the joints (Watch out for the airtightness of installations and openings). Watch out for the sealant leaking onto the surface.
16. Lining or other details need to be covered individually.



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# NOVATOP EASY BOARD ASSEMBLY INSTRUCTIONS

## CONTENTS



### Drilled panels

17. The procedure is the same for drilled panels. If it is necessary to anchor the drilled panels in the surface, we recommend nailing them mechanically or with an air gun. Alternatively, anchoring with screws + wire.
18. If you want to achieve acoustic attenuation with drilled profiles, you need to install an absorber (e.g. wood fibre or mineral insulation) in the underlying grid and cover it with fabric (e.g. Fibertex) so that it does not crumble. Or you can use prefabricated NOVATOP ACOUSTIC panels ([www.novatop-acoustic.cz](http://www.novatop-acoustic.cz)).



Untreated wood

## 8 SURFACE FINISH

- The panels are supplied without surface treatment as standard. Surface treatment can be ordered from 200 m<sup>2</sup>, in the design for interior or covered exterior, see surface treatments p. 10.
- If the panels are not coated from the factory, we recommend treating the visual side of the interior with a suitable surface treatment intended for solid wood (glazing paints, oils, waxes for the interior), which significantly in-

creases resistance to dirt and UV radiation. The technological procedure is governed by the instructions of the manufacturer of the selected coating. Untreated wood naturally darkens.

- The panels can be painted individually before installation, or all over after installation. Before surface treatment, we recommend sanding the surface with P 150 or P180. We also recommend treating the visual sides of the panels with surface treatment.
- If the painted panel is damaged during assembly, the repair can be made by gently sanding the affected area and then treating it with the same type of paint. The technological procedure is governed by the instructions of the manufacturer of the selected coating.



Drilled profile with surface treatment

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**9 MAINTENANCE**

1. We recommend continuously removing dust and dirt on the surface of the visible sides of the panels with a dry or wet cloth or a vacuum cleaner with an attachment (dust brush).
2. In the case of moderate soiling of the wooden surface, we recommend using a soft dry or moistened cloth or sponge, or using cleaning agents intended for wooden surfaces. Do not use excessive amounts of water.
3. Wooden surface damage that cannot be cleaned (alcohol marker, scratches) can be solved by gently sanding the affected area and then treating it with the same type of coating. The technological procedure is governed by the instructions of the manufacturer of the selected coating. Warning: When placing decorations, pictures, lights shelves, etc., it is necessary to take into account that, after a certain time, the UV radiation will "burn" their contours, and the treatment of this place may be more demanding.
4. The panels need to be protected from moisture (air conditioning condensate, running or dripping water, etc.). The producer assumes no liability for the damage of the product due to improper storage, processing, unsuitable use or non-observance of work procedures during the assembly.

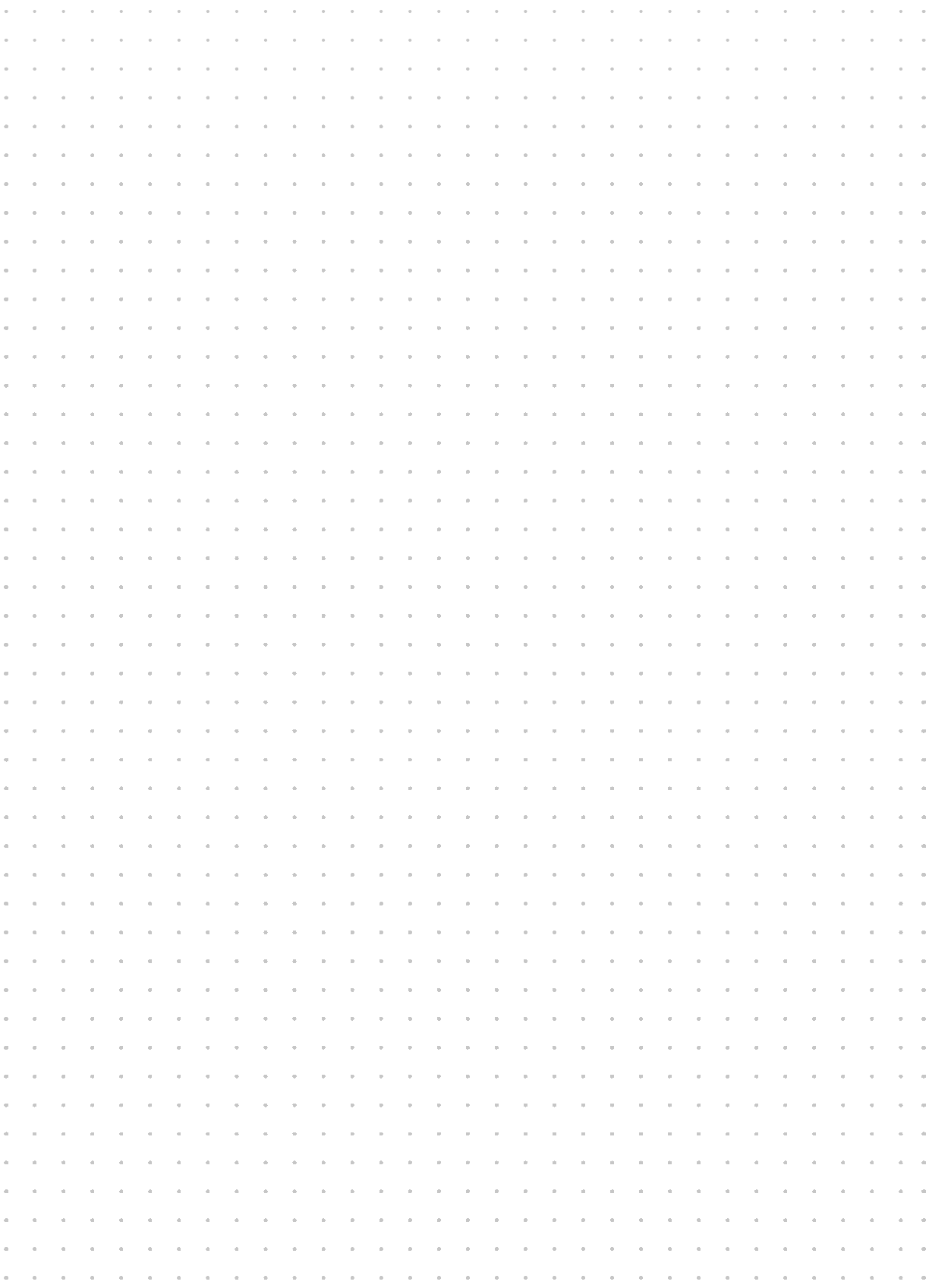
**10 WARRANTY TERMS**

Warranty on the SWP panel functionality of 10 years, subject to compliance with the principles of structural protection, inspection and recommended measures: Complaint report of the manufacturer AGROP NOVA a.s



Complaint  
report

# NOTES



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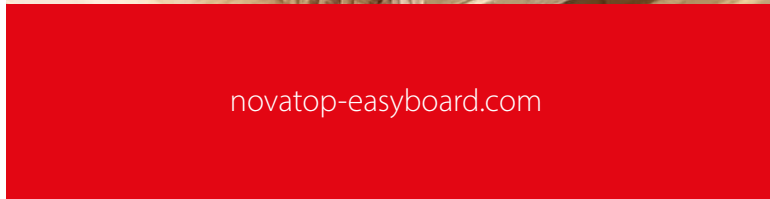
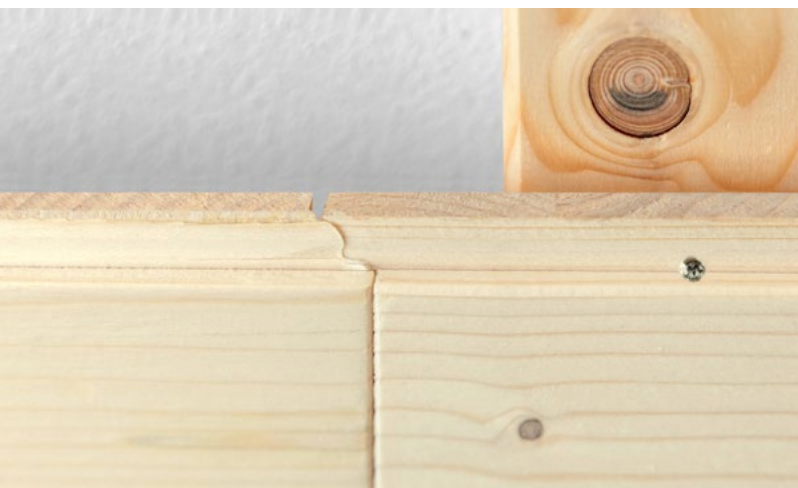
5



# EXAMPLES OF APPLICATIONS







[novatop-easyboard.com](http://novatop-easyboard.com)

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Manufacturer certificates:

