





## Lao ® by Laudescher

THE FINEST WOOD ACOUSTIC SUSPENDED CEILINGS

1200 x 600 mm panel installation on standard T24 grid

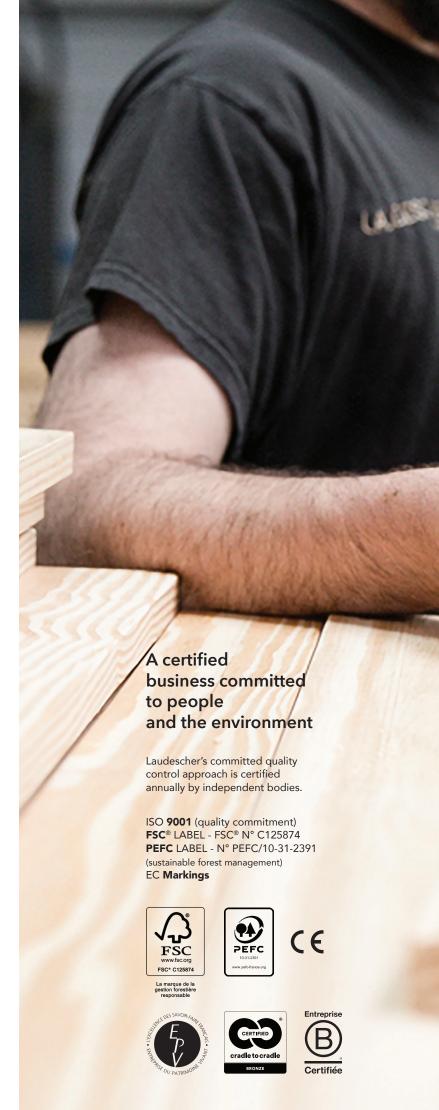
"Wood isn't just a building material for us. It has been our inspiration for over 50 years of creation in the name of architecture and quality of life. Laudescher has developed a unique and globally recognised industrial activity that covers standard woodwork to cutting edge technology.

Our company has chosen to propose innovative high value solutions to professionals precisely because it is driven by a passion for wood, motivated by a humanist vision of the trade and open to the world.

Working alongside these professionals, it confronts the technical, environmental and economic challenges of contemporary construction. It selects high quality sustainable resources, pushes technology forwards and imagines new forms for the buildings of tomorrow. "

Jean-Marc Laudescher Chairman





# High performance panels

#### High level acoustic performance

Thanks to Laudescher's expertise, the natural high performance qualities of wood are optimised in the form of solid and fire resistant certified products with excellent environmental and acoustic properties. The proven sound absorption and reflection properties of Laudescher ceiling panels mean that they can be used to manage the sonic environments of all types of space, from auditoriums to gymnasiums.

#### Perfect panel resistance

The guarantee is founded on the halved joint assembly technique which makes sure that our solutions have smooth lines and are unitary.

### Air quality and respect for the environment

A+ or A classification Laudescher ceiling panels guarantee optimal interior air quality thanks to their low VOC emissions (according to the ISO 16000-3, 9 and 11 standards). These results mean that Laudescher can contribute to HQE, BREEAM, LEED, Effinergie or Blue Angel labelled projects. The panels all have environmental and public health declaration certificates.

## Laō<sup>®</sup>, innovation aiding installers

## The easiest and quickest system

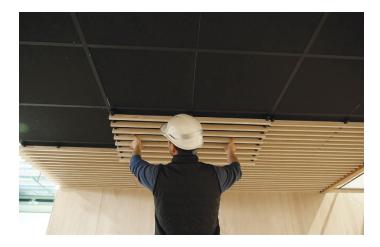
for mounting and dismounting

#### Patent pending

system which fits to a standard T24 grid with 1200 mm runner spacing

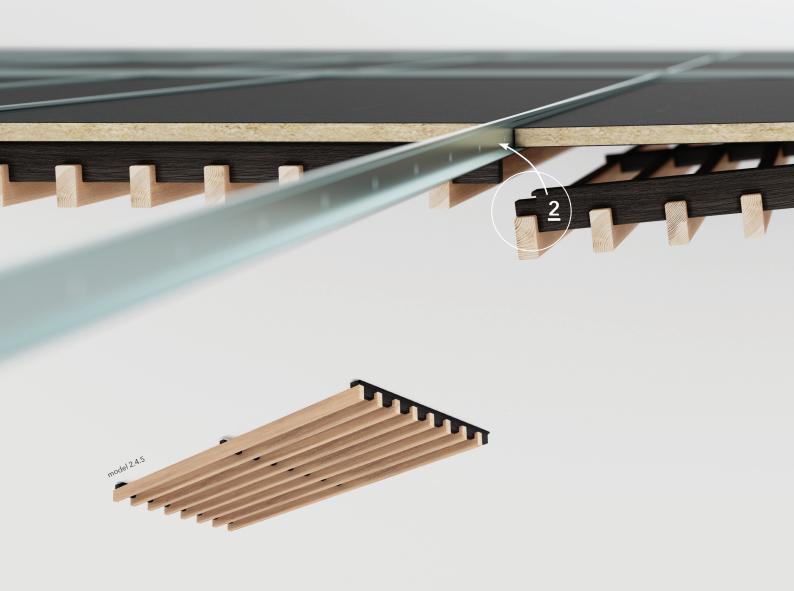
#### Can be installed from below

by a single operative without any need to access the plenum









## 1200 x 600 mm panel for suspended ceiling fits to a standard T24 grid with 1200 runner spacing

**Hidden grid**, the assembly hides the grid ensuring perfect panel alignment. The product can be fitted to a black T24 grid\*, maximum load 13.5 kg/m², evenly distributed compliant to the currently applicable standards and good practices regulations for the country in question (DTU 58-1). Laudescher does not supply the structural elements.

**Installed from below** using a patented system with no need to access the plenum. The system can also be used for standard acoustic ceilings, not included. In this case it is better to place the insulating materials first and then simply and quickly fit the Laō panels over it.

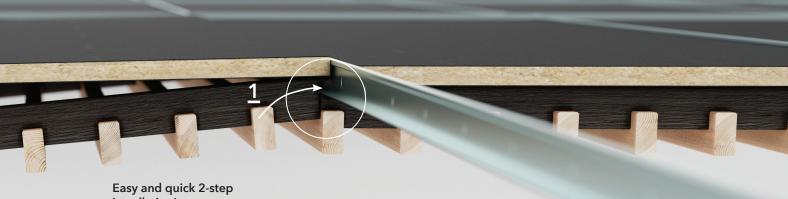
Laō ceiling panels are removable making maintenance easier.

Fire performance: Euroclasse B-s1,d0 or B-s2,d0 depending on the finish.

#### A large range of models and finishes

6 jointed pine finishes and 1 solid pine finish. For 6 edged slat models and 6 flat slat models.

<sup>\*</sup> The joints between the runners and spacers must be secured with a harpoon system. The whole of the grid and suspension system must be suitable for use in damp and/or corrosive conditions.



## Easy and quick 2-step installation!

















Natural

Douglas

Oak

White oak

Honey

White

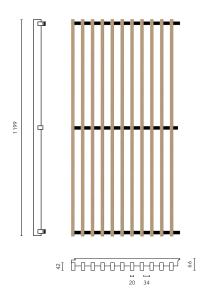
**1 solid pine finish** Euroclasse B-s1,d0 autoclave fire-proofing treatment

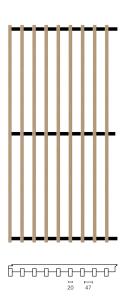


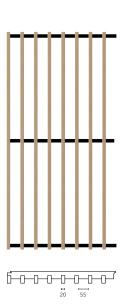
Natural

#### laō models

### edged slats







Laō 2.4.3

Number of slats 11

Laō 2.4.4

9

Laō 2.4.5

8

#### **TECHNICAL SPECIFICATIONS**

Panel dimensions	1199 x 600 mm	1199 x 600 mm	1199 x 600 mm
Slat cross-section	20 mm (edge) x 42 mm (height)	20 mm (edge) x 42 mm (height)	20 mm (edge) x 42 mm (height)
Slat spacing	35 mm	47 mm	55 mm
Centre distance of slats	55 mm	67 mm	75 mm
Black edge counter-slat rears	20 mm (edge) x 42 mm (height)	20 mm (edge) x 42 mm (height)	20 mm (edge) x 42 mm (height)
Black central counter-slat rears	20 mm (edge) x 28 mm (height)	20 mm (edge) x 28 mm (height)	20 mm (edge) x 28 mm (height)
Total thickness	66 mm	66 mm	66 mm
Surface mass (pine)	10.8 kg/m²	9 kg/m²	8.1 kg/m²
Openness percentage	63%	70%	73%

#### FINISH / REACTION TO FIRE (ACCORDING TO EN 13501-1)

Fire-proofing (solid pine)	B-s1,d0	B-s1,d0	B-s1,d0
Fire-proofing (jointed pine)	B-s2,d0	B-s2,d0	B-s2,d0

#### ACOUSTIC PERFORMANCE compliant to the ISO 11 654 standard (lao+LR 20mm acoustic insulation for an E250mm plenum not supplied)

Weighted index	$\alpha_{W} = 0.90*$	$\alpha_{W} = 0.90*$	$\alpha_{W} = 0.90*$
Absorption class	Class A	Class A	Class A

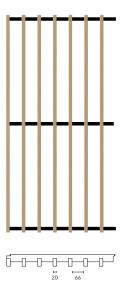
#### **ENVIRONMENTAL INDICATOR**

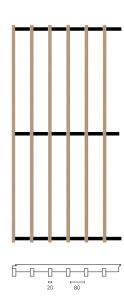
Production stage (jointed pine)	-9.72 kg eq CO2/m²	-8.18 kg eq CO2/m²	-7.41 kg eq CO2/m²
IC component (jointed pine)	-1.22 kg eq CO2/m²	-0.73 kg eq CO2/m²	-0.49 kg eq CO2/m²

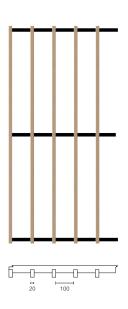
<sup>\*</sup> The acoustic absorption of these products has been measured compliant to the iso 354 standard

## **2.4.5** jointed pine model with Douglas finish: available from stock

Other models and finishes: available within 2 weeks of order date







Laō 2.4.6

7

Laō 2.4.8

6

Laō 2.4.10

5

1199 x 600 mm	1199 x 600 mm	1199 x 600 mm
20 mm (edge) x 42 mm (height)	20 mm (edge) x 42 mm (height)	20 mm (edge) x 42 mm (height)
66 mm	80 mm	100 mm
86 mm	100 mm	120 mm
20 mm (edge) x 42 mm (height)	20 mm (edge) x 42 mm (height)	20 mm (edge) x 42 mm (height)
20 mm (edge) x 28 mm (height)	20 mm (edge) x 28 mm (height)	20 mm (edge) x 28 mm (height)
66 mm	66 mm	66 mm
7.2 kg/m²	6.4 kg/m²	5.5 kg/m²
77 %	80%	83%

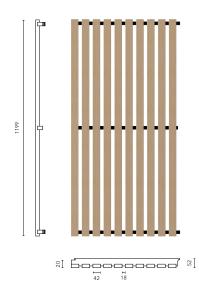
B-s1,d0	B-s1,d0	B-s1,d0
B-s2,d0	B-s2,d0	B-s2,d0

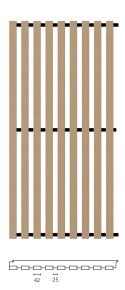
$\alpha_{W} = 0.90*$	$\alpha_{W} = 0.90*$	$\alpha_{W} = 0.90*$
Class A	Class A	Class A

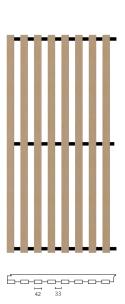
1		
-6.64 kg eq CO2/m²	-5.87 kg eq CO2/m²	-5.1 kg eq CO2/m²
-0.24 kg eq CO2/m²	0 kg eq CO2/m²	0.24 kg eq CO2/m²

#### laō models

#### flat slats







Laō 4.2.1

Number of slats 10

Laō 4.2.2

9

.40 7.2.2

Laō 4.2.3

8

#### **TECHNICAL SPECIFICATIONS**

Panel dimensions	1199 x 600 mm	1199 x 600 mm	1199 x 600 mm
Slat cross-section	42 mm (edge) x 20 mm (height)	42 mm (edge) x 20 mm (height)	42 mm (edge) x 20 mm (height)
Slat spacing	18 mm	25 mm	33 mm
Centre distance of slats	60 mm	67 mm	75 mm
Black edge counter-slat rears	20 mm (edge) x 42 mm (height)	20 mm (edge) x 42 mm (height)	20 mm (edge) x 42 mm (height)
Black central counter-slat rears	20 mm (edge) x 28 mm (height)	20 mm (edge) x 28 mm (height)	20 mm (edge) x 28 mm (height)
Total thickness	52 mm	52 mm	52 mm
Surface mass (pine)	9.9 kg/m²	9 kg/m²	8.1 kg/m²
Openness percentage	30%	37%	44%

#### FINISH / REACTION TO FIRE (ACCORDING TO EN 13501-1)

Fire-proofing (solid pine)	B-s1,d0	B-s1,d0	B-s1,d0
Fire-proofing (jointed pine)	B-s2,d0	B-s2,d0	B-s2,d0

#### ACOUSTIC PERFORMANCE compliant to the ISO 11 654 standard (lao+LR 20mm acoustic insulation for an E250mm plenum not supplied)

Weighted index	$\alpha_{W} = 0.55*$	$\alpha_{W} = 0.65*$	$\alpha_{W} = 0.75*$
Absorption class	Class D	Class C	Class C

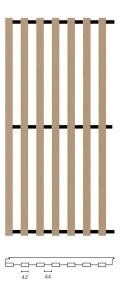
#### **ENVIRONMENTAL INDICATOR**

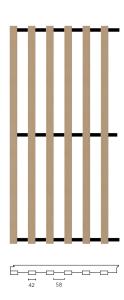
Production stage (jointed pine)	-8.47 kg eq CO2/m²	-7.7 kg eq CO2/m²	-6.93 kg eq CO2/m²
IC component (jointed pine)	-1.16 kg eg CO2/m²	-0.92 kg eg CO2/m²	-0.67 kg eg CO2/m²

<sup>\*</sup> The acoustic absorption of these products has been measured compliant to the iso 354 standard

#### Download from our website

- typical description for drafting specification documents
- complete installation document







Laō 4.2.4

7

Laō 4.2.5

6

Laō 4.2.7

5

i .	i .	I.
1199 x 600 mm	1199 x 600 mm	1199 x 600 mm
42 mm (edge) x 20 mm (height)	42 mm (edge) x 20 mm (height)	42 mm (edge) x 20 mm (height)
44 mm	58 mm	78 mm
86 mm	100 mm	120 mm
20 mm (edge) x 42 mm (height)	20 mm (edge) x 42 mm (height)	20 mm (edge) x 42 mm (height)
20 mm (edge) x 28 mm (height)	20 mm (edge) x 28 mm (height)	20 mm (edge) x 28 mm (height)
52 mm	52 mm	52 mm
7.2 kg/m²	6.4 kg/m²	5.5 kg/m²
51%	58%	65%

B-s1,d0	B-s1,d0	B-s1,d0
B-s2,d0	B-s2,d0	B-s2,d0

$\alpha_{W} = 0.8*$	$\alpha_{W} = 0.8*$	$\alpha_{W} = 0.85^{*}$
Class B	Class B	Class B

-6.17 kg eq CO2/m²	-5.4 kg eq CO2/m²	-4.63 kg eq CO2/m²
-0.43 kg eq CO2/m²	-0.18 kg eq CO2/m²	0.06 kg eq CO2/m²



## Options & accessories

Extra	Extra counter-slats provide greater	
counter-slat	flexibility when cutting or reconstituting panels or simply for re-using panel off-cuts	
Extra central counter-slat	Extra counter-slats provide greater flexibility when cutting or reconstituting panels or simply for re-using panel off-cuts	
Extra slat	Extra slats allow you to finish the work neatly by ensuring use of the same cross-sections	
Cutting profile	The cutting profile provides greater flexibility when cutting panels to ensure that they cope perfectly with site constraints.	
Laō edging strip	Edging strips recreate the edging system after cutting a counter-slat	
Backing	Backing allow you to make a wide variety of cuts and inserts, or can be used to hide the plenum but retaining acoustic performance (reverberation)	
Custom backing option	Contact us	
Custom panel option with backing for inserts	Contact us	
Finish options	Slat or counter-slat touch-up product	

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Graphic design and mock-up Agence Sens Design

Photos on pages 4 and 5: © Alfred Cromback

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