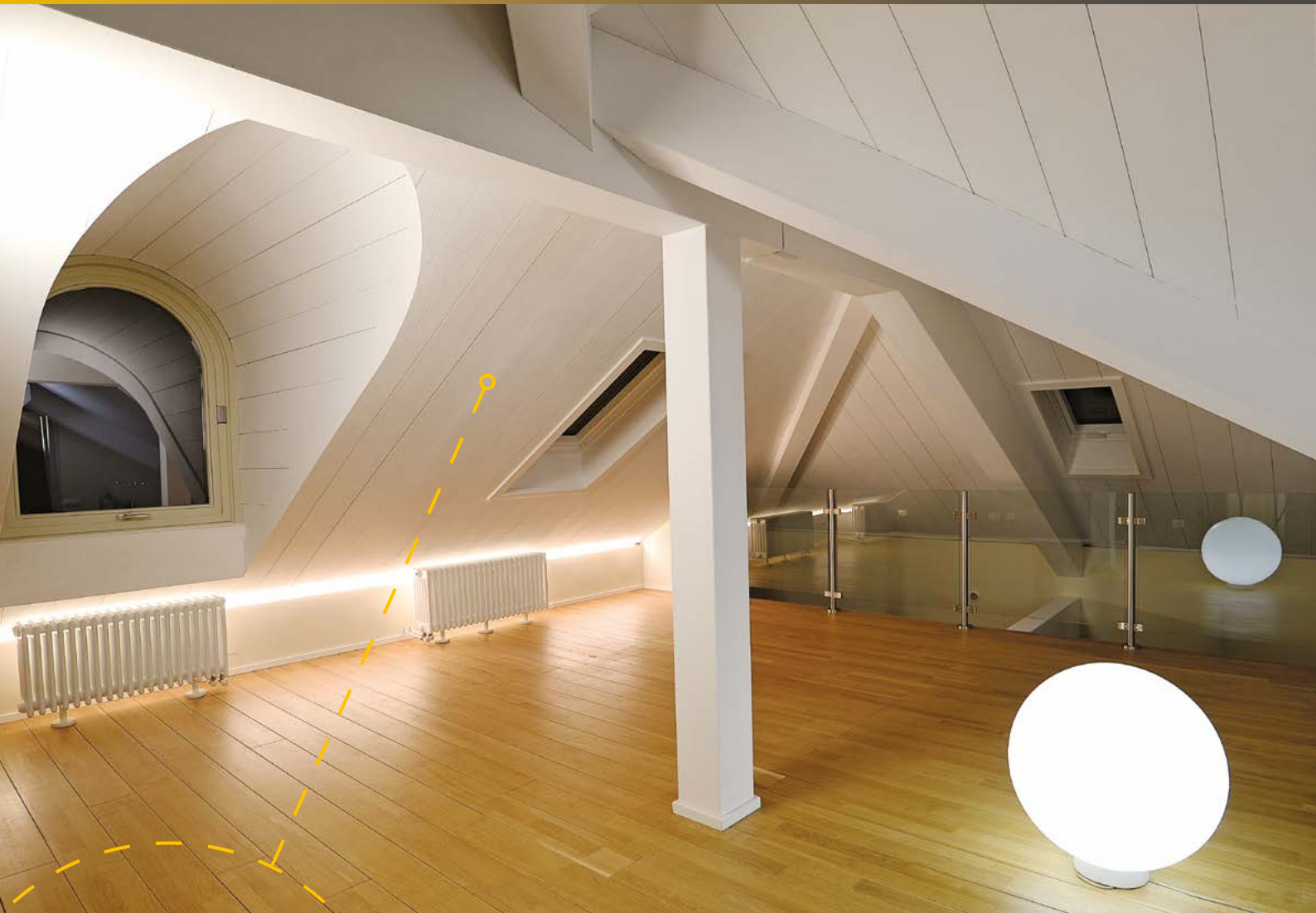




Sapolis[®] product line

Technical Assessment ventilated roof 5/15-2443
Technical Assessment unventilated roof 5.2/19-2649_VI





Insulating panels
Energy efficient

December 2019






 Spruce - Profile n°2 - Spread of flame B-s1, d0 - Red wine painting

 Spruce - Profile n°1 - Sanded - Natural

Outcome of over 35 years of know-how and experience in design and manufacture of wood components for construction, Sapolis® **self-supporting** panels provide you with complete, efficient and sustainable solutions for your building's insulation.



 Oak - Profile n°2 - Chalk white

Summary

The product line

Applications

Advantages

Eco-friendly

Finishes of the undersides

Sapolis®

Sapolis® acoustic underside - Sapiliège®

Achievements

p 3

p 4 - 5

p 6

p 7

p 8 - 9

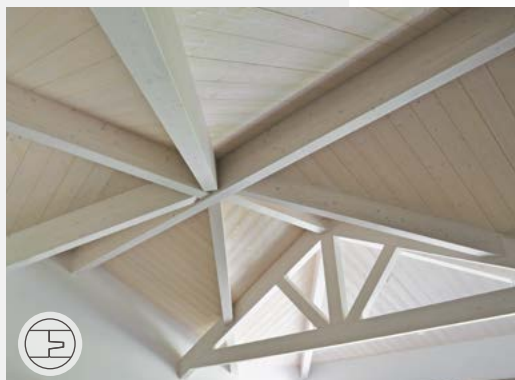
p 10

p 11

p 12 à 15



 Spruce - Profile n°2 - White stain



 Spruce - Profile n°2 - Sanded - White paint



 Spruce - Profile n°2 - White paint

The product line

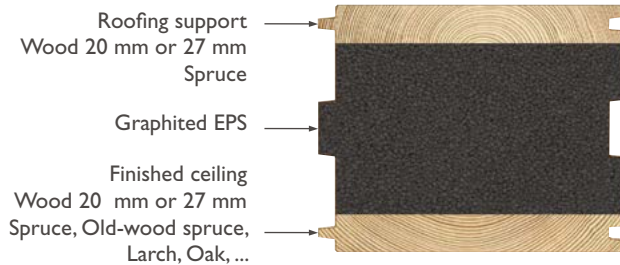
• Description

Made of two wood facings and a polystyrene core (or cork), Simonin insulating panel comes with different thicknesses for all types of projects private, public, industrial...

• Build up

Sapolis®

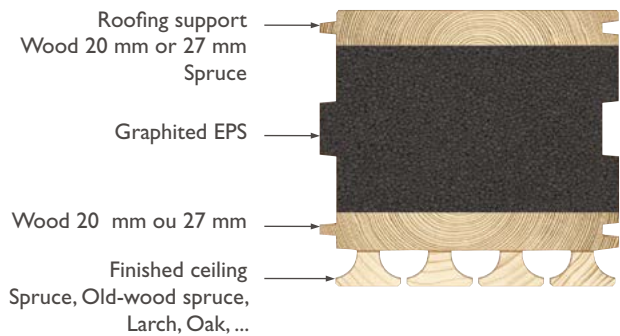
Roof and facade application



Spruce - Profile n°2 - Brushed White paint

Sapolis® acoustic underside

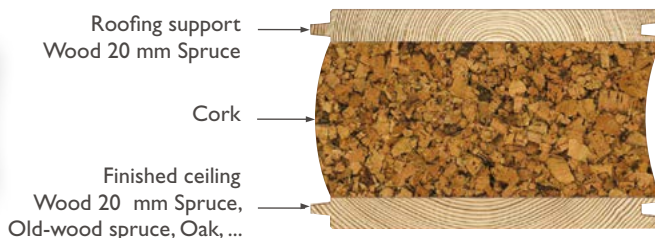
(or Sapiphone) - Roof application



Spruce - Acoustic underside

Sapiliège®

Roof and facade application



Applications

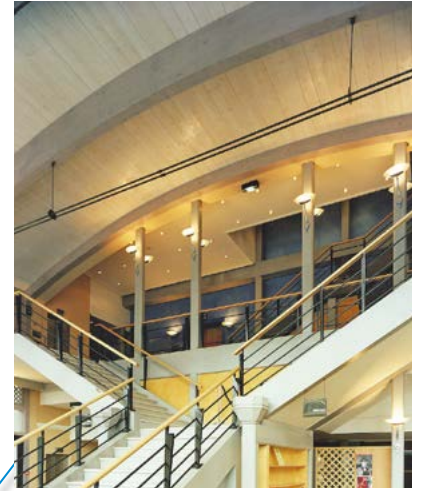


Photo credit : IPEV / Claire LE CALVEZ

Concordia station in Antarctica at 3000 m altitude



Hotel complex in Qatar



New - Theater in Morteau



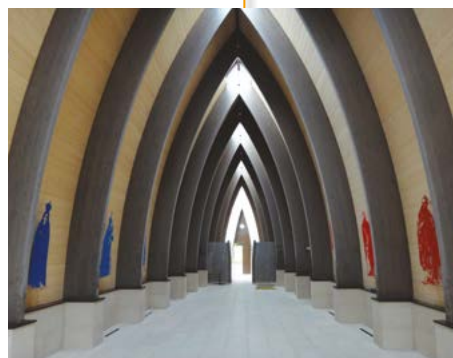
Hotel - Restaurant in Congo



Tile roofing (See technical documents)



Green roof (See technical documents)



Church in Equatorial Guinea



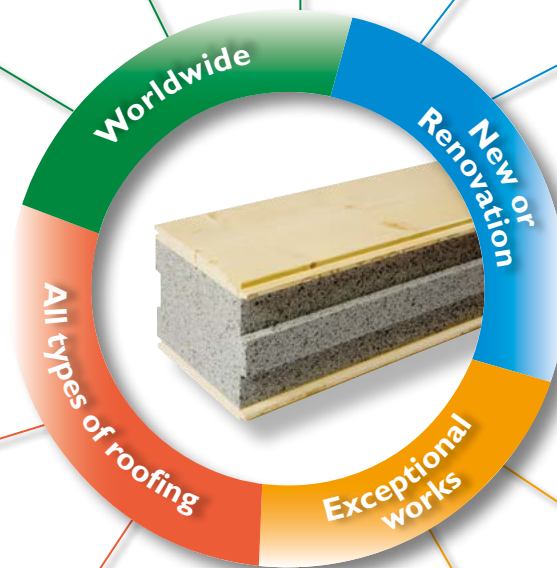
Refurbishment
Restaurant in Montlebon



Terminal in Equatorial Guinea

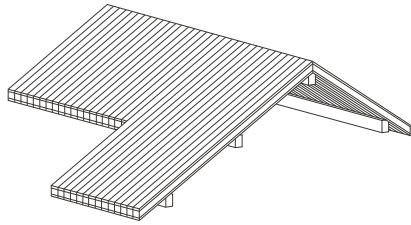


Dome in Oman

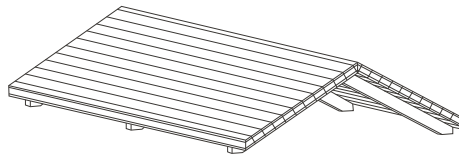


Applications

Straight gable roof



Vertical installation

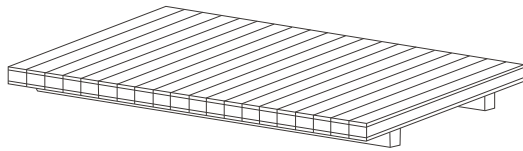


Horizontal installation

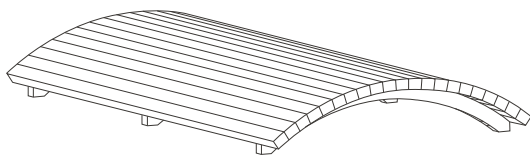


Paneled oak - Profile n°2

Flat roof



Curved roof



Cone-shaped roof or slightly waved roof



Steel framework



Spruce - Profile n°2 - Colourless



Advantages

STRUCTURAL

Wide spans



Spans up to 6 m* between supports :

- saving wood economy in main structure
- enlarges volume
- gain in living space

* Span of 6 m with Sapolis® S200 (according to Technical documents).

INSULATING

Performant



Photo credit : IPEV / Claire LE CALVEZ

- Insulation without any thermal bridge
- Acoustic requirements
- No deformation, no settlement over time (*reliability*)

SUSTAINABLE

Sound and long lasting



Sapolis® adapts to :

- any environment (*sensitive and extremely sensitive*)
- all altitudes and at all latitudes

Finished wood soffit



In one operation :

- high performance insulation
- wood ceiling and eaves fully finished
- reliable roofing support and resistant

Low consumption



- Reduce your energy costs
- Designed for low energy housing (*Conforms Thermal Regulation 2012*)
- + 19% than a traditional solution
- Meets the airtightness test

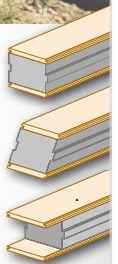
Zero waste on site



- Cut and milled in the workshop (*Reliability - Speed*)

- Square cut
- Corner cut
- Various cut

- Up to 17 m



Cantilevered



Up to 1m80

Continuous insulation



Carried by hand



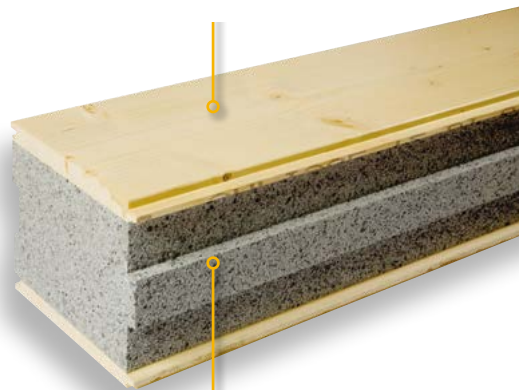
Eco-friendly



- Natural
- Recyclable
- Renewable
- Carbon storer
- Low energy consumption for its production



WOOD



EPS



- 98% air for 2% of material (*Light and handy*)
- Water vapor expansion (*Long lasting*)
- Chemical-free manufacturing : no CFC, HFC, HCFC... no heavy metals (*Non-polluting*)
- 100% recyclable



- Non-irritating and harmless (*Neutral for the indoor air quality of buildings*)
- Non-toxic (*Use in the food industry...*)
- Fireproof (*Doesn't ignite during a fire and doesn't release any gas*)



Finishes of the undersides

• Wood species



Spruce



Spruce - Profile n°1 - Sanded - Natural



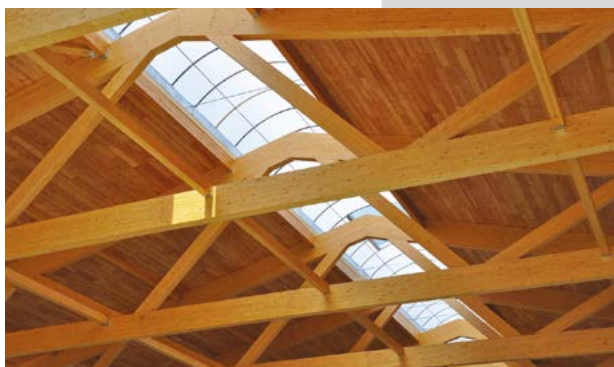
Spruce old-wood



Spruce old-wood - Profile n°2 - Brushed - Natural



Larch



Larch - Profile n°2 - Sanded - Natural



Oak



Oak - Profile n°2 - Sanded - Chalk white

• Textures




Sanded



Brushed

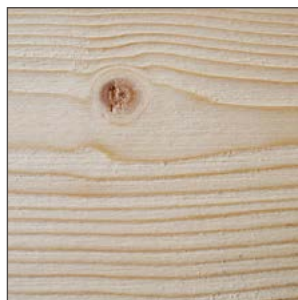


 Spruce - Profile n°2 - Sanded - White stain
Low voltage led integration

• Finishes



Natural



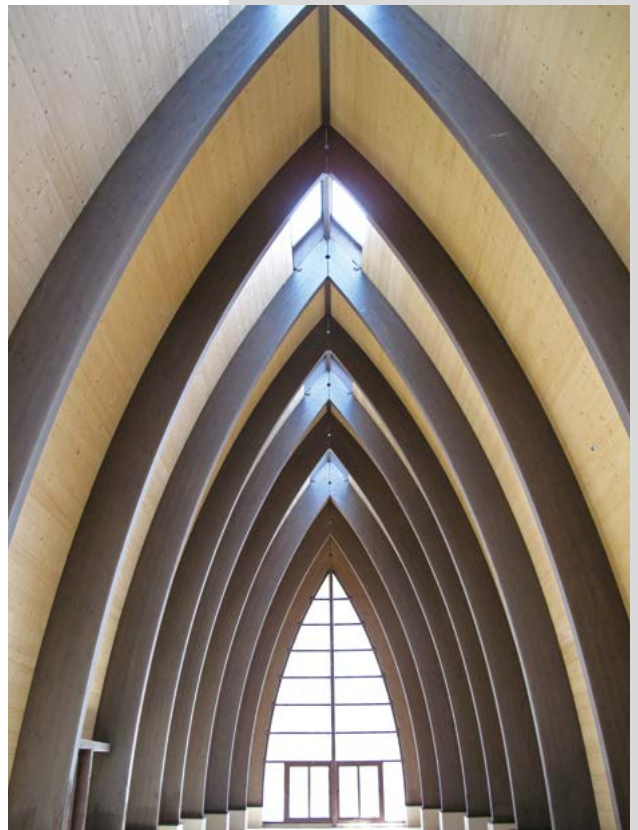
Colourless




Spread of flame



White paint




 Spruce - Profile n°2 - Sanded - Natural



White stain



 Spruce - Profile n°2 - Spread of flame B-s1, d0
Red wine painting

**OTHER COLOURS
ON REQUEST**

Sapolis®

• The product line

Sapolis® roof insulating panel fits to all types and shapes of roofs, ensuring perfect **insulation without any thermal bridging.**



• Sapolis® with boards thickness 20 mm (House)

Type = total thickness (mm)	S 86	S 106	S 136	S 160	S 186	S 220 f
Wood + EPS + Wood (mm)	20+46+20	20+66+20	20+96+20	20+120+20	20+146+20	20+180+20
Useful width (mm)	205	205	205	205	205	205
Length*	All lengths within transportable limits					
	yes	no	yes	yes	yes	no
Weights (kg/m ²)	18,70	19,3	20,20	20,90	21,70	22,70
Thermal values R* (m ² x K/W)	1,79	2,44	3,40	4,18	5,02	6,11
Coefficient R* with phonic under-coverage	35 mm	2,59	3,23	4,20	4,97	6,91
	60 mm	3,15	3,80	4,76	5,54	6,38
Fire reaction classification	D-s1, d0					

* (Also available in standard length of 5,50 ml useful with groove and tongue at the ends)

• Sapolis® with boards thickness 27 mm (Public buildings with B-s1, d0)

Type = total thickness (mm)	S 100	S 120	S 150	S 174	S 200	S 220 e
Wood + EPS + Wood (mm)	27+46+27	27+66+27	27+96+27	27+120+27	27+146+27	27+166+27
Useful width (mm)	205	205	205	205	205	205
Length	All lengths within transportable limits					
Weights (kg/m ²)	24,60	25,20	26,10	26,80	27,60	28,20
Thermal values R* (m ² x K/W)	1,90	2,54	3,51	4,29	5,13	5,77
Coefficient R* with phonic under-coverage	35 mm	2,69	3,34	4,31	5,08	6,57
	60 mm	3,26	3,91	4,88	5,65	6,49
Fire reaction classification	D-s1, d0 (B-s1, d0 on demand)					

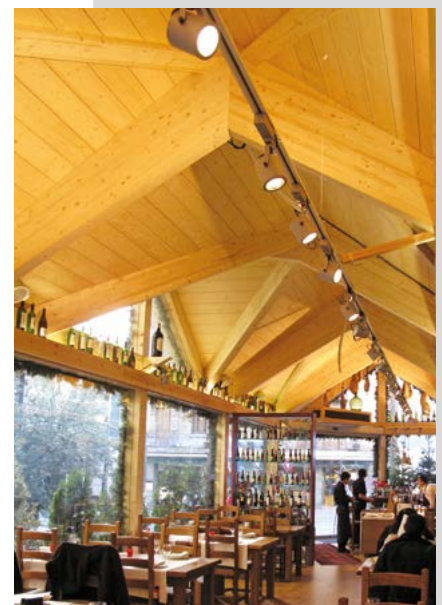
* Doesn't take into account superficial thermal resistances.



Spruce - Profile n°1
2 coats of white stain



Spruce - Profile n°2
Sanded - Natural



Spruce - Profile n°2
Sanded - Natural

Sapolis® acoustic underside said "Sapiphone"

• The product line

Perfect for buildings whose interior sound must be corrected (swimming-pool, media library, library, restaurant, gym...).



Sabine absorption coefficient :
Weighted sound absorption index $\alpha_{Sabine} = 0.25$

• Characteristics

Type = Total thickness (mm)	SP 108	SP 158	SP 200
Wood + EPS + Wood (mm)	20+22+46+20	20+22+96+20	26+28+120+26
Useful width (mm)	205	205	205
Weights kg/m ²	23.97	25.47	33.80
Thermal values R* (m ² x K/W)	1.79	3.40	4.29
Coefficient R* with phonic under-coverage	35 mm	4.20	5.08
	60 mm	3.15	4.76
Fire reaction classification	D-sl, d0		D-sl, d0 (B-sl, d0 on demand)

* Doesn't take into account superficial thermal resistances.



Spruce - Profile acoustic - Sanded - B-sl, d0 - White

r2k Architects - Picture Javier Calejas Sevilla



Spruce - Profile acoustic - Sanded - Grey saturator

Sapiliège®

• The product line

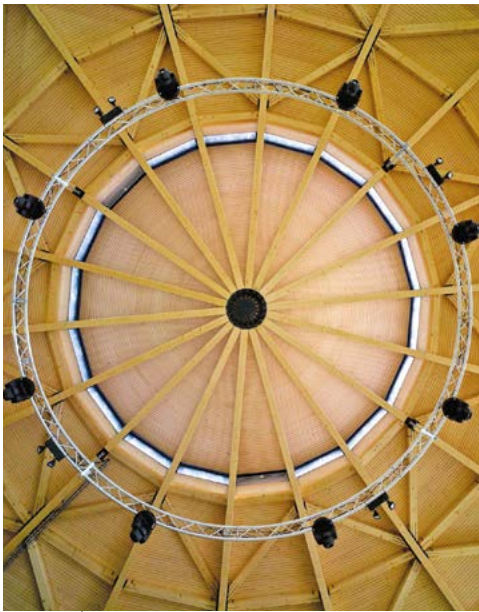
Sapiliège® panels are both **wide span roofs and floors and decorative ceilings**. Ideal for roofs, they perfectly fit all interior designs : old, contemporary, modern, ...



Type = total thickness (mm)	SL 136	
Wood + Cork + Wood (mm)	20+96+20	
Useful width (mm)	205	
Length	All lengths	
Weights kg/m ²	39	
Thermal values R* (m ² x K/W)	2,40	
Coefficient R* with undercover in wood fiber	35 mm	3.19
	60 mm	3.76


* Doesn't take into account superficial thermal resistances.

Achievements




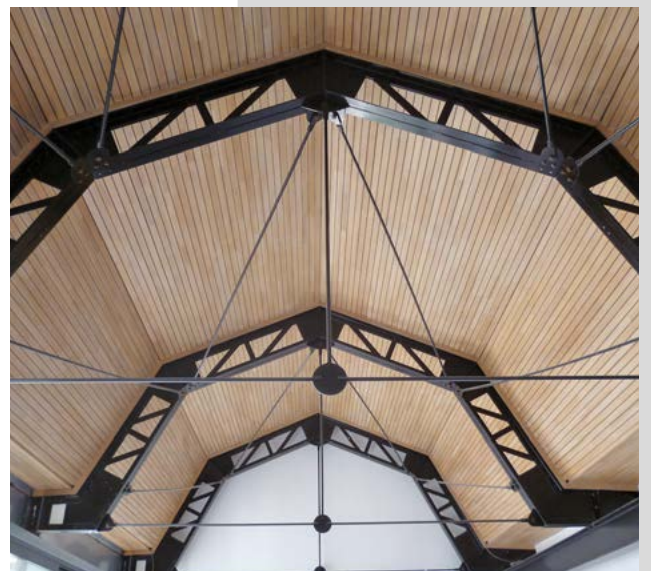
 Spruce - Acoustic profile




 Spruce - Acoustic profile - Brushed - Light grey saturator




 Paneled oak - Profile n°2 - Sanded




 Paneled oak - Acoustic profile - Sanded - Natural




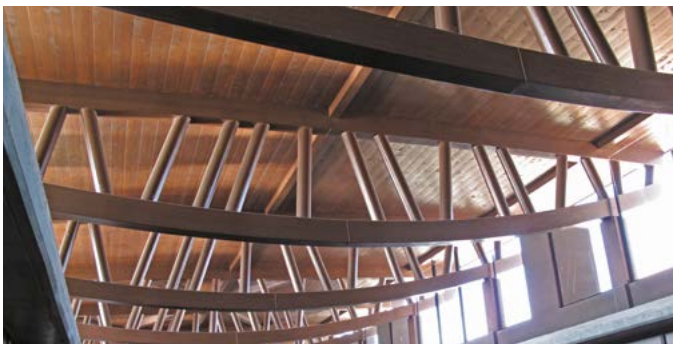
 Spruce - Profile n°1 - Sanded - Stain




 Spruce - Profile n°1 - Sanded - Colourless




 Spruce - Profile n°2 - Sanded - Natural




 Spruce - Profile n°2 - Walnut paint




 Spruce - Acoustic profile - Sanded - Natural




 Paneled oak - Profile n°2 - Sanded - Chalk white




 Spruce - Profile n°1 - Sanded - Colourless



 Spruce - Profile n°1 - Sanded - Colourless

Achievements




 Spruce - Profile n°2 - White stain




 Spruce - Profile n°2 - Spread of flame B-s1, d0 - Red wine painting

AMEA architecture



 Spruce - Profile n°2 - Brushed - White stain



 Spruce - Profile n°2 - Sanded Natural




 Spruce - Acoustic profile - Sanded - Colourless




 Spruce - Profile n°1 - Sanded - Natural



 Spruce - Profile n°2 - Colourless

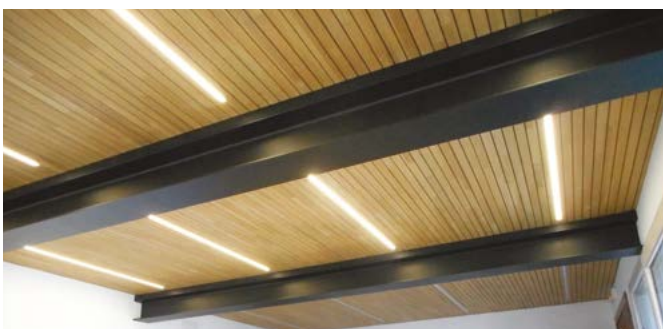



 Spruce - Profile n°1 - Colourless




 Spruce - Acoustic profile - Sanded - B-s1, d0 - White

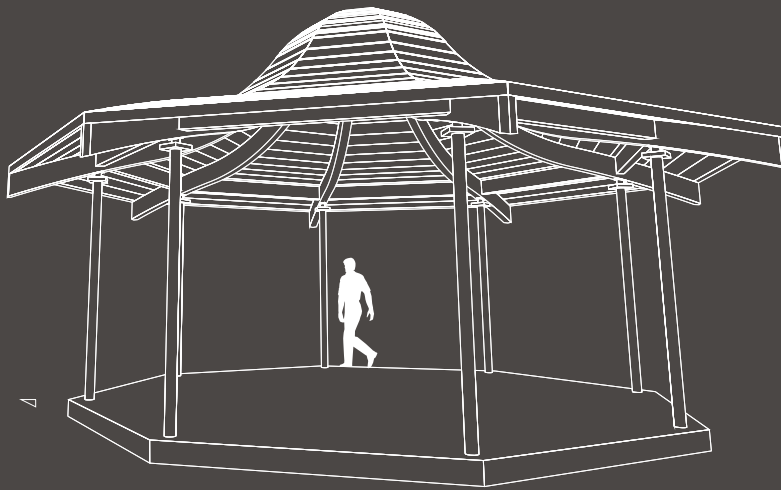
r2k Architectes - Picture Javier Calejas Sevilla



 Oak - Profile acoustic - Sanded - Natural



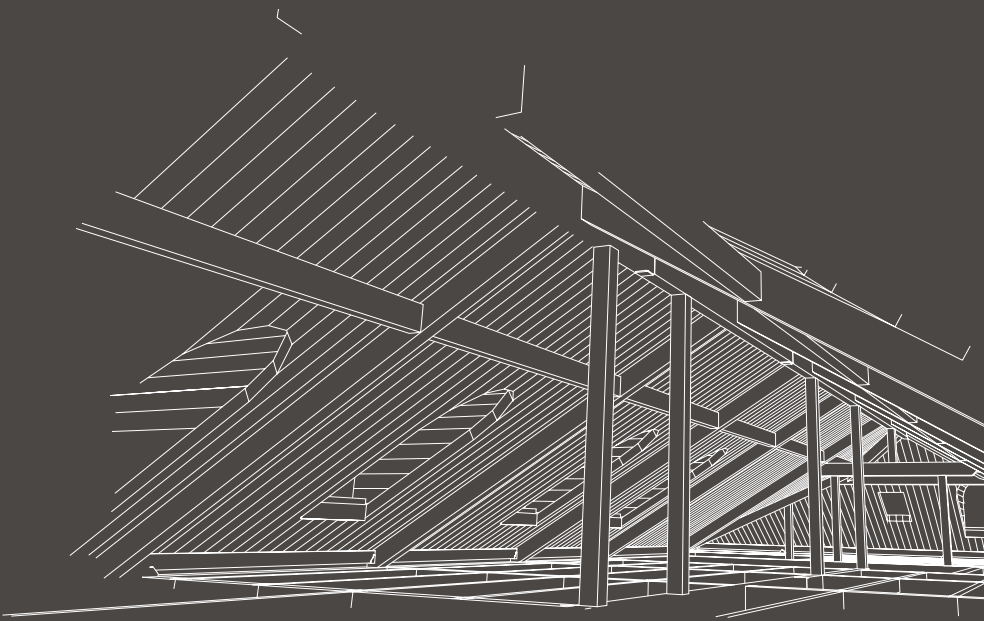
 Spruce - Profile n°2 - Brushed - White stain



Curved roof
Kiosk - Spain



Oak - Profile n°2 - Sanded
Colourless



Roofing vertical installation
Hotel - Italy



Spruce - Profile n°2 - Brushed
White paint



SIMONIN
Wood Solutions