ALWAYS ON TOP

Caliplac Wooden Sandwich Panels:
smart solutions for construction

CALIPLAC

WE INNOVATE IN CONSTRUCTION

Caliplac presents its new Sandwich Panels for the construction of lightweight roofing.

PANEL IS MADE UP OF THREE LAYERS

1 **INTERIOR** Decorative, in wood, plaster or cement-bonded wood

2 **CORE** Extruded polystyrene (XPS)

3 **EXTERIOR** Water-resistant particleboard

The use of **Caliplac Wooden Sandwich Panels** offers a wide range of advantages. Their lightness allows for easy placement on both flat and sloping roofs, with additional qualities that make them the optimal choice for construction projects in comparison to traditional methods. These building materials are a smart alternative for structures of all kinds: they reduce installation time for new builds and offer an exceptional solution for renovation projects.

Their special multi-layer composition allows for highly effective finishes of superb quality.

CALIPLAC

Caliplac Sandwich Panels help save time and money in construction without sacrificing quality and product guarantees.

- PERFECT ENCLOSURES IN LESS TIME
- DUAL INSULATION: THERMAL AND SOUND
- WIDE VARIETY OF DECORATIVE FINISHES

WE EXCEED EXPECTATIONS

Caliplac Sandwich Panels meet all of the market's technical requirements.

THERMAL INSULATION

Our panels provide thermal insulation in accordance with the new DB HE 1 regulation on the limitation of energy requirements and the Technical Building Code, and meet the general requirements for thermal insulation of buildings. Structures built using Caliplac Sandwich Panels economize the use of energy and allow for better and faster acclimatization of the environment under all types of conditions, from hot to cold, which in turn provides a more comfortable interior space.

SOUND INSULATION

Another great advantage offered by Caliplac panels is their excellent performance in terms of sound insulation, in all types of construction. The result is a space that is protected against its surroundings and external noise, thereby improving the quality of the built space.

All these qualities mean that finishing an enclosure with Caliplac panels provides considerable savings in both time and construction costs, while maintaining the very highest levels of quality and product guarantees.

Caliplac offers a wide range of top-quality interior finishes to decorate and protect each space

Dovetail joining system of the Caliplac Sandwich Panels

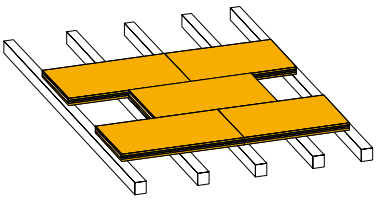
TECHNICAL SPECIFICATIONS FOR THE EXTRUDED POLYSTYRENE SHEET

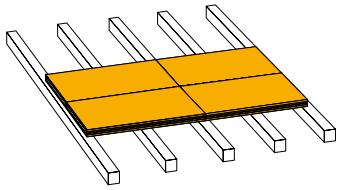
XPS CORE

PROPERTY	VALUE	STANDARD
Thickness	40 - 200 mm	EN 823
Compression resistance (10% deformation)	300 kPa	EN 826
Compression module	14,000 kPa	EN 826
Thermal conductivity (10°C/90 days)	0.027 W/(m·K)	EN12667 / EN12939
Declared thermal conductivity λ_D	0.029 W/(m·K)	EN 13164
Nominal density	35 Kg/m^3	EN 1602
Damp resistance	1.2 - 3.5 Ng/Pa·m·s	EN 12086
Water absorption	<1.5 % Volume	EN 12087
Traction resistance	500 kPa	EN 1607
Traction module	12,000 kPa	EN 1607
Shear resistance	200 - 250 kPa	EN 12090
Shear module	4,000 - 5,000 kPa	EN 12090
Fire reaction	Euroclass E	EN 13501-1
Bracket	< 2 mm	EN 824
Temperature limit for application	-50 / +75 ºC	
Capillarity	Zero	
Surface finish	Uncoated, grooved	
Thermal coefficient of linear expansion	0.07 mm/(m·K)	
Dimensions (length x width)	2,500 x 1,200 mm	EN 822
Thickness tolerance	+0.5 / -0.5 mm	
Width tolerance	+0 / -3 mm	EN 822
Length tolerance	+0 / -5 mm	EN 822
Lateral finish	Straight edge	

We can make cores from expanded black cork agglomerate to order.

QUICK AND EFFECTIVE INSTALLATION





FITTING TO THE STRUCTURE

The Caliplac Sandwich Panels are placed onto wooden or metal structures, alternating the cross-wise joints and affixing the panel to a minimum of three points of support. Fitting starts at the bottom of the structure and gradually progresses up to the apex. As shown in the diagrams, the panels may be arranged alternately, in trefoil formation, or continually.

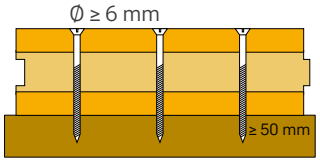
The panels are joined by dovetailing, thereby preventing thermal bridges.

AFFIXING

WOODEN STRUCTURES

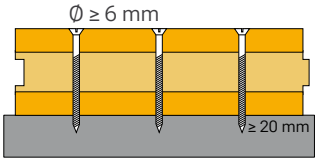
The panels are affixed to the structure with self-tapping screws.

The diameter of the screws is a minimum of 6 mm, while the lengths may vary depending on the type of structure used.



METAL STRUCTURES

The panels are affixed to the structure with self-drilling screws.



The fitting of the panels is completed with the necessary sealing of the joins, in order to ensure the roof is protected against any potential water leaks. Various different products can be used for the sealing process: latex paint, self-adhesive waterproof strips, waterproof sheeting, or other waterproof under-tile materials.

COMPLETING THE ENCLOSURE

Using Caliplac Wooden Sandwich Panels is quick and simple.

The panels considerably reduce the amount of work time required and the cost of construction, while offering a perfect interior finish and an ideal support for completing the enclosure. This is done by placing the desired material – slate, tile, metal sheeting, etc. – directly onto the outer surface of the panels.

Caliplac will not be held responsible for the incorrect fitting or sealing of its products.

FIR PANELLING

CAXH

Panel comprised of damp-proof particleboard measuring 16 mm on the outer face, an insulating core of extruded polystyrene (XPS) and an inner face made from 10 mm dovetailed fir panelling. Fir panelling with fire-resistant varnish made to order.

DIMENSIONS (mm)

LENGTH	WIDTH	THICKNESS
2400	550	66 / 76 / 86 / 106 / 126
3000	550	66 / 76 / 86 / 106 / 126

Check availability for other sizes and thicknesses.

COMPOSITION

LAYER	COMPOSITION	THICKNESS
INTERIOR	Fir panelling	10 mm
CORE	Extruded polystyrene (XPS)	40 / 50 / 60 / 80 / 100 mm
EXTERIOR	Damp-proof particleboard	16 mm

TECHNICAL INFORMATION

REFERENCE	THERMAL PROPERTIES	LOADS FOR L/250 / kg/m²			
	W/m² ºK	**Weight Kgr/m²**	**1200 mm**	**800 mm**	**600 mm**
CAXH/10-40-16	0.52	16.70	420	790	946
CAXH/10-50-16	0.44	17.00	525	1122	1217
CAXH/10-60-16	0.38	17.40	640	1285	1497
CAXH/10-80-16	0.29	18.10	892	1510	1728
CAXH/10-100-16	0.22	18.60	1196	1784	1982

Fir panelling with fire-resistant varnish made to order.

DAMP-PROOF PARTICLEBOARD

CHXH

Panel comprised of damp-proof particleboard measuring 16 mm on the outer face, an insulating core of extruded polystyrene (XPS) and an inner face of damp-proof particleboard, also measuring 16 mm.

This panel is recommended for roofs where the interior finish of the panel does not need to be decorative, and as such it is the cheapest panel in the Caliplac range.

DIMENSIONS (mm)

LENGTH	WIDTH	THICKNESS
2440	600	72 / 82 / 92 / 112 / 132

Check availability for other sizes and thicknesses.

COMPOSITION

LAYER	COMPOSITION	THICKNESS
INTERIOR	Damp-proof particleboard	16 mm
CORE	Extruded polystyrene (XPS)	40 / 50 / 60 / 80 / 100 mm
EXTERIOR	Damp-proof particleboard	16 mm

TECHNICAL INFORMATION

REFERENCE	THERMAL PROPERTIES	LOADS FOR L/250 / kg/m²			
	W/m² ºK	**Weight Kgr/m²**	**1220 mm**	**810 mm**	**610 mm**
CHXH/16-40-16	0.52	22.80	580	1235	1410
CHXH/16-50-16	0.44	23.10	735	1316	1554
CHXH/16-60-16	0.38	23.50	863	1644	1842
CHXH/16-80-16	0.29	24.20	1096	1969	2171
CHXH/16-100-16	0.22	24.80	1370	2236	2462

PLASTERBOARD

CPLXH

Panel comprised of damp-proof particleboard measuring 16 mm on the outer face, an insulating core of extruded polystyrene (XPS) and an inner face of plasterboard (laminated plaster) measuring 13 mm. This panel is an excellent solution for optimum sound insulation. Fire reaction classification B-s1, d0.

DIMENSIONS (mm)

LENGTH	WIDTH	THICKNESS
2440	600	69 / 79 / 89 / 109 / 129

Check availability for other sizes and thicknesses.

COMPOSITION

LAYER	COMPOSITION	THICKNESS
INTERIOR	Plasterboard panel	13 mm
CORE	Extruded polystyrene (XPS)	40 / 50 / 60 / 80 / 100 mm
EXTERIOR	Damp-proof particleboard	16 mm

TECHNICAL INFORMATION

REFERENCE	THERMAL PROPERTIES	LOADS FOR L/250 / kg/m²			
	W/m² ºK	**Weight Kgr/m²**	**1220 mm**	**810 mm**	**610 mm**
CPLXH/13-40-16	0.52	21.60	516	1113	1280
CPLXH/13-50-16	0.44	21.90	642	1284	1416
CPLXH/13-60-16	0.38	22.30	756	1475	1664
CPLXH/13-80-16	0.29	23.00	914	1702	1829
CPLXH/13-100-16	0.22	23.60	1274	1948	2164

An excellent solution for effective sound insulation.

CEMENT-BONDED WOOD

CVXH

Panel comprised of damp-proof particleboard measuring 16 mm on the outer face, an insulating core of extruded polystyrene (XPS) and an inner face of Viroc® (made from particles of mineralized wood bonded with Portland cement) measuring 10 mm.
This panel has a variety of uses, including the construction of roofs, partition walls and floors. Unalterable. Panels of this type are not solely employed in building roofs, but also offer a wide range of other options, such as internal walls and flooring. This model boasts a fire reaction classification of B-s2, d0 and is a superb solution for sound insulation, as well as being damp-proof and specifically unalterable.

DIMENSIONS (mm)

LENGTH	WIDTH	THICKNESS
2400	550	66 / 76 / 86 / 106 / 126
2440	600	66 / 76 / 86 / 106 / 126

Check availability for other sizes and thicknesses.

COMPOSITION

LAYER	COMPOSITION	THICKNESS
INTERIOR	Viroc® panel	10 mm
CORE	Extruded polystyrene (XPS)	40 / 50 / 60 / 80 / 100 mm
EXTERIOR	Damp-proof particleboard	16 mm

TECHNICAL INFORMATION

REFERENCE	THERMAL PROPERTIES	LOADS FOR L/250 / kg/m²			
	W/m² ºK	**Weight Kgr/m²**	**1200 mm**	**800 mm**	**600 mm**
CVXH/10-40-16	0.52	26.10	525	1155	1329
CVXH/10-50-16	0.44	26.40	676	1311	1480
CVXH/10-60-16	0.38	26.80	785	1507	1731
CVXH/10-80-16	0.29	27.50	908	1789	1910
CVXH/10-100-16	0.22	28.10	1096	1924	2120

An excellent solution for the construction of roofs, partition walls and floors.

OSB (QUALITY LEVEL 3)

COXH

Panel comprised of damp-proof particleboard measuring 16 mm on the outer face, an insulating core of extruded polystyrene (XPS) and an inner face of OSB (oriented strand board) of quality level 3, measuring 10 mm. This panel performs particularly well under damp conditions.

DIMENSIONS (mm)

LENGTH	WIDTH	THICKNESS
2440	600	66 / 76 / 86 / 106 / 126

Check availability for other sizes and thicknesses.

COMPOSITION

LAYER	COMPOSITION	THICKNESS
INTERIOR	OSB panel	10 mm
CORE	Extruded polystyrene (XPS)	40 / 50 / 60 / 80 / 100 mm
EXTERIOR	Damp-proof particleboard	16 mm

TECHNICAL INFORMATION

REFERENCE	THERMAL PROPERTIES	LOADS FOR L/250 / kg/m²			
	W/m² ºK	**Weight Kgr/m²**	**1220 mm**	**810 mm**	**610 mm**
COXH/10-40-16	0.52	18.10	530	1170	1365
COXH/10-50-16	0.44	18.40	681	1360	1516
COXH/10-60-16	0.38	18.80	815	1597	1802
COXH/10-80-16	0.29	19.50	1045	1924	2125
COXH/10-100-16	0.22	20.10	1286	2132	2365

Highly resistant to damp.

HERAKLITH®

CHeXH

Panel comprised of damp-proof particleboard measuring 16 mm on the outer face, an insulating core of extruded polystyrene (XPS) and an inner face of Heraklith® magnesite-bonded wooden strand boards. This panel offers excellent sound insulation properties and is recommended for "green" construction projects due to its environmentally friendly nature.

Heraklith® stands out for its climate-control properties and superb sound absorption, making it ideal roofing material for heated pools, sports centres, schools and the hospitality industry.

DIMENSIONS (mm)

LENGTH	WIDTH	THICKNESS
2440	600	71 / 81 / 91 / 111 / 131

Check availability for other sizes and thicknesses.

COMPOSITION

LAYER	COMPOSITION	THICKNESS
INTERIOR	Heraklith® panel	15 mm
CORE	Extruded polystyrene (XPS)	40 / 50 / 60 / 80 / 100 mm
EXTERIOR	Damp-proof particleboard	16 mm

TECHNICAL INFORMATION

REFERENCE	THERMAL PROPERTIES	LOADS FOR L/250 / kg/m²			
	W/m² ºK	**Weight Kgr/m²**	**1220 mm**	**810 mm**	**610 mm**
CHeXH/15-40-16	0.51	20.10	496	1142	1333
CHeXH/15-50-16	0.43	20.40	648	1332	1487
CHeXH/15-60-16	0.36	20.80	784	1565	1770
CHeXH/15-80-16	0.28	21.50	1016	1894	2098
CHeXH/15-100-16	0.22	22.20	1324	2194	2415

Good sound insulation and climate control.

PHENOLIC PLYWOOD

CFXH

Panel comprised of damp-proof particleboard measuring 16 mm on the outer face, an insulating core of extruded polystyrene (XPS) and an inner face of phenolic plywood measuring 10 mm. The veneer is available in a range of finishes, including okoume, pine and oak.

DIMENSIONS (mm)

LENGTH	WIDTH	THICKNESS
2440	600	66 / 76 / 86 / 106 / 126

Check availability for other sizes and thicknesses.

COMPOSITION

LAYER	COMPOSITION	THICKNESS
INTERIOR	Phenolic plywood	10 mm
CORE	Extruded polystyrene (XPS)	40 / 50 / 60 / 80 / 100 mm
EXTERIOR	Damp-proof particleboard	16 mm

TECHNICAL INFORMATION

REFERENCE	THERMAL PROPERTIES	LOADS FOR L/250 / kg/m²			
	W/m² ºK	**Weight Kgr/m²**	**1220 mm**	**810 mm**	**610 mm**
CFXH/10-40-16	0.52	17.30	410	776	921
CFXH/10-50-16	0.44	17.60	507	1096	1187
CFXH/10-60-16	0.38	18.00	603	1234	1428
CFXH/10-80-16	0.29	18.70	845	1447	1649
CFXH/10-100-16	0.22	19.20	1126	1634	1871

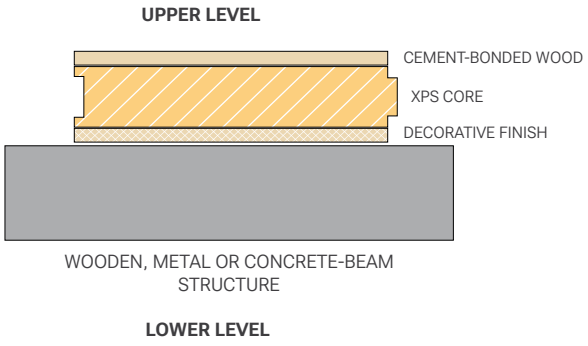
Highly resistant to damp.

SOLTEC

PANELS FOR CREATING MEZZANINES/INTERMEDIATE STOREYS

Caliplac lets you choose the finish for your panel's inner face from a range of decorative options.

SOLTEC is double-sided: it has an outer face, made from a cement-bonded wooden panel (such as Viroc) measuring 10 mm, which will form part of the flooring of the upper level; an insulating core of extruded polystyrene (XPS); and an inner face with a decorative finish that will comprise the ceiling of the lower level. SOLTEC is a Sandwich Panel made from a very lightweight material that will prevent overloading of the building's structure, which makes it particularly recommended for renovation work.



Designed and manufactured for the simple, quick and effective construction of mezzanines and intermediate storeys.

The panels are fitted directly onto the structure of the building, whether the structure is wooden, metal or concrete-beam.

DIMENSIONS (mm)

LENGTH	WIDTH	THICKNESS
2400	550	60 / 80 / 100 / 120
2440	600	60 / 80 / 100 / 120

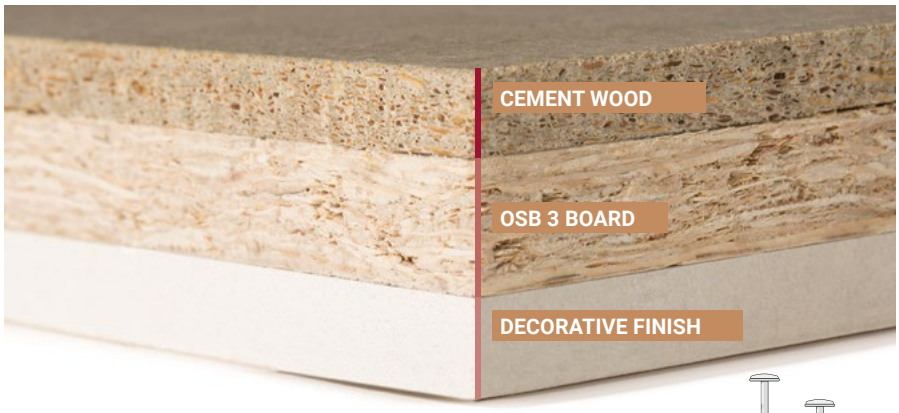
Check availability for other sizes and thicknesses.

This panel's special composition boasts class B fire performance, excellent sound insulation and high resistance to damp.

FORJAPLAC

PANEL FOR FLOOR SYSTEMS AND MEZZANINES

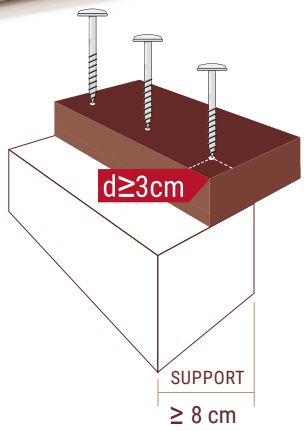
Caliplac offers you the possibility of choosing the finish of the interior face of the panel from a variety of decorative possibilities



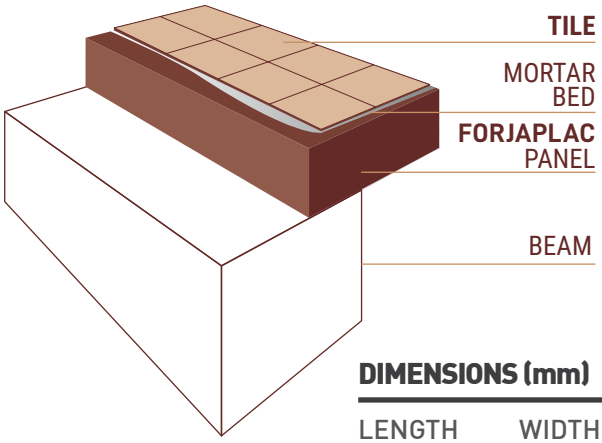
Can be fitted over all types of structures (wood, concrete, metal) and on **4 or 5 support points.**

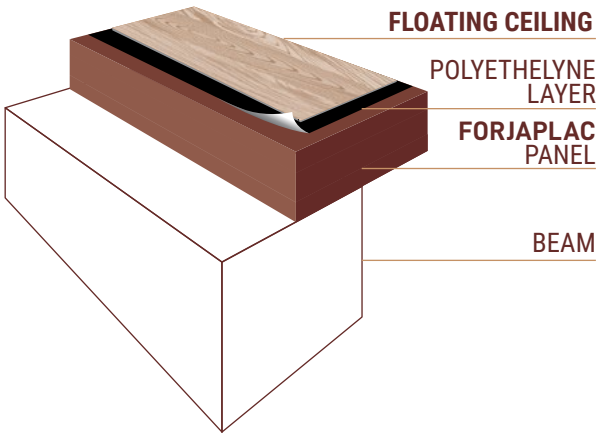
UPPER FACE · Cement-wood board
INTERMEDIATE SECTION · OSB 3 board
DECORATIVE FACE · Natural spruce veneer, varnished or stained
* other woods available
· Plasterboard (laminated gypsum board)

It is recommended that the panels be drilled with an electric drill without hammer and a wood drill bit, drilling holes **3 cm** from the sides.



Ready for floor laying.





DIMENSIONS (mm)

LENGTH	WIDTH	THICKNESS
2400	550	35 / 38
2440	600	35 / 38

Consult availability for other measurements and thicknesses

The results are lightweight wooden mezzanines in record time.

This novel panel permits an effective, quick, clean and long-lasting solution compared to traditional constructions with a B-S1, d0 fire reaction.

GREEN CONSTRUCTION

CALIPLAC

Smart solutions that allow you to carry out construction work in less time while guaranteeing the necessary thermal and sound insulation

For green construction projects, Caliplac offers building materials – such as materials of plant origin – that have a reduced environmental impact, come from recycled sources or are highly recyclable, and can be extracted using simple processes.

We use high-density black cork agglomerate in the core; panelling of high-quality hardwoods such as oak and chestnut, or conifers such as fir and red pine (all with certificates of controlled logging) for the inner face; and recycled materials such as Coretech, damp-proof particleboard or OSB (quality level 3) for the outer face.

All Caliplac Sandwich Panels can be made with

100% natural

expanded black cork agglomerate

Joining system for Sandwich Panels with a black cork core

DOVETAILING SYSTEM

DIMENSIONS (mm)

LENGTH	WIDTH
2400	550 / 600

THICKNESS

60 / 70 / 80 / 100 / 120

Check availability for other sizes and thicknesses.

FIR FINISH

OSB (QUALITY LEVEL 3) FINISH

PLASTERBOARD FINISH

LIGHTWEIGHT · WATERPROOF · THERMAL AND SOUND INSULATION

ACCESSORIES

SCREWS FOR METAL

No. 5 winged drill point screws

Flat head TORX

Affixing wood to metal

Measurements 6.3 x 110/130 /160 mm

SCREWS FOR WOOD

Wood screws

Flat head TORX

Zinc-galvanized or chrome-plated

Measurements 6 x 120 /140/160/180/200/240 mm

ROLL OF WATERPROOF FABRIC

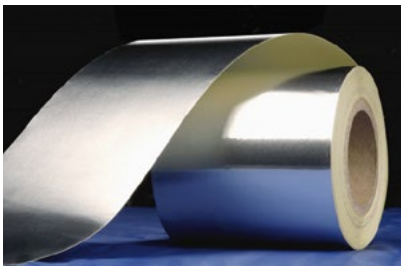
Breathable waterproof sheet140 g/m^2

Measurements 50 x 1.50 m (75 m^2)

Self-adhesive option available

ROLL OF ADHESIVE TAPE

Roll of adhesive tape for sealing joins.
Alu, 7.2 x 45 (45 ml)



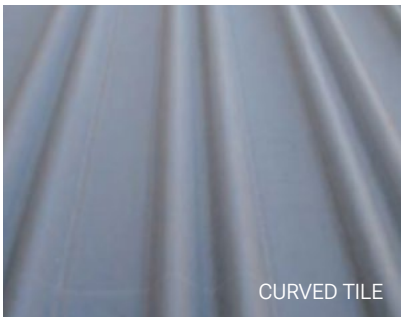
UNDER-TILE PANEL

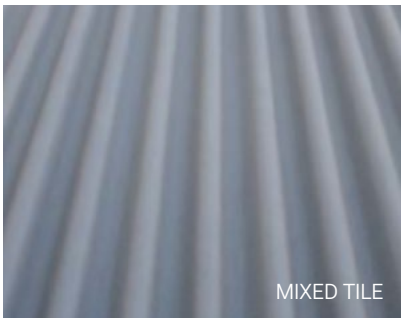
For curved tiles from 18.5 to 23 cm

Measurements 2 x 0.99 m

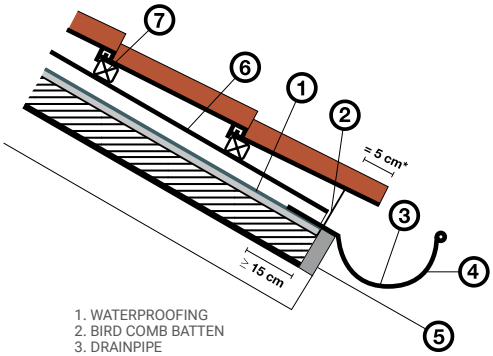
For mixed and concrete tiles. Corrugated

Measurements 2 x 0.87 m



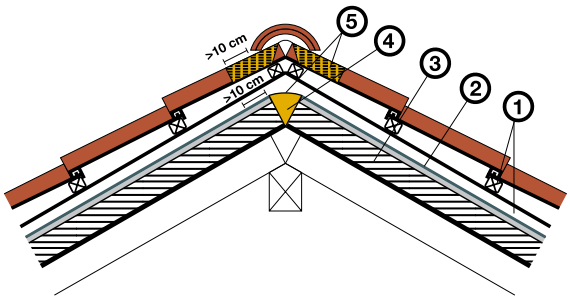


CONSTRUCTION DETAILS

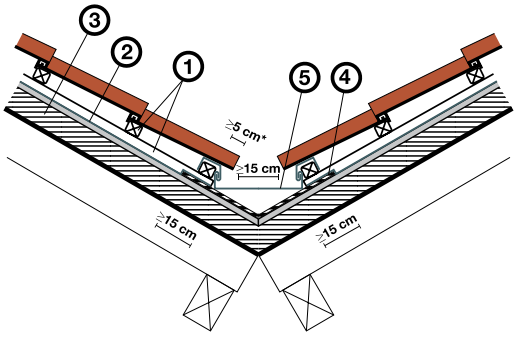


1. WATERPROOFING
2. BIRD COMB BATTEN
3. DRAINPIPE
4. DRAINPIPE BRACKET
5. PERIMETER PANEL TRIM
6. CORRUGATED ASPHALT SHEET
7. WOODEN BATTEN

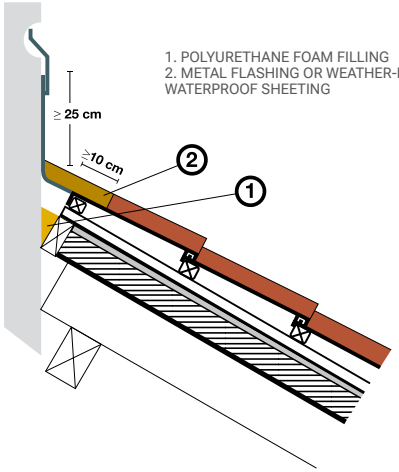
* The roofing material must be lifted by at least 5 cm



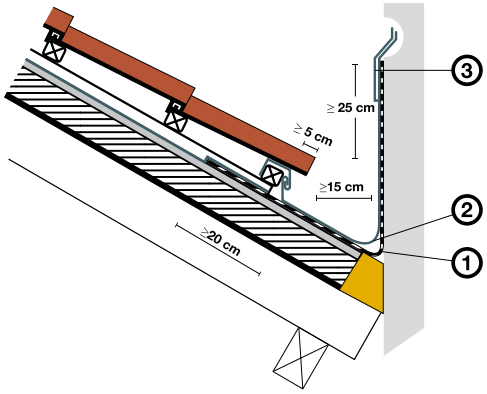
1. BATTENS, 35 x 45 mm
2. DAMP-PROOF SHEET
3. SANDWICH PANEL
4. POLYURETHANE FOAM FILLING
5. FLASHING: ZINC, LEAD, GALVANIZED STEEL, SELF-ADHESIVE WATERPROOF SHEETING



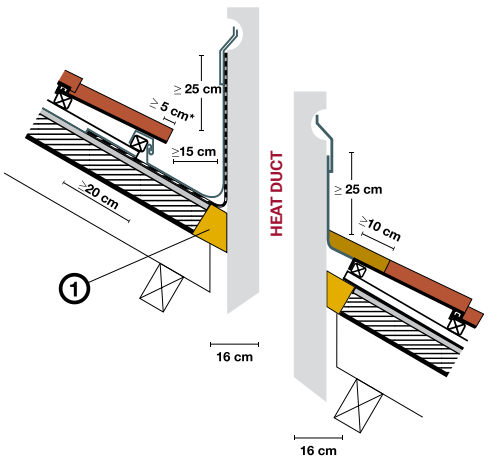
1. BATTENS, 35 x 45 mm
2. DAMP-PROOF SHEET
3. SANDWICH PANEL
4. WATERPROOFING SHEET
5. ZINC VALLEY



1. POLYURETHANE FOAM FILLING
2. METAL FLASHING OR WEATHER-RESISTANT WATERPROOF SHEETING



1. WATERPROOFING
2. DRAINPIPE
3. ZINC FLASHING (DRIP EDGE)

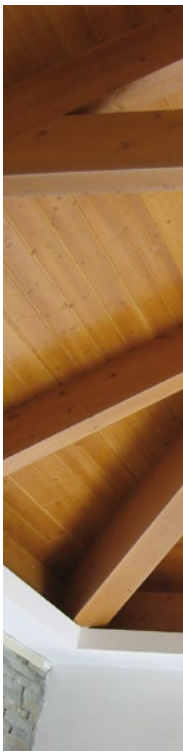


FOR AN OPTIMUM FINISH IT IS VITAL TO ENSURE THE CALIPLAC WOODEN SANDWICH PANELS ARE FITTED CORRECTLY, WHETHER TO A WOODEN OR METAL STRUCTURE.

PERFECT FINISHES

TAILOR-MADE SOLUTIONS

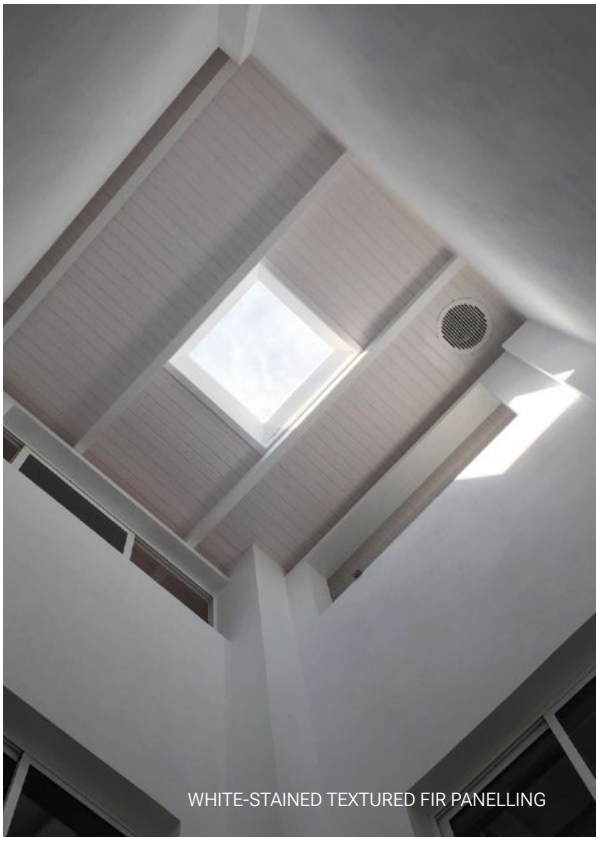
VARNISHED FIR PANELLING

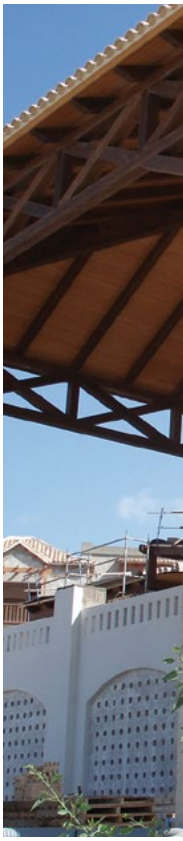


VARNISHED IROKO

HONEY-STAINED FIR PANELLING

OSB PANEL, QUALITY LEVEL 3


WHITE-STAINED TEXTURED FIR PANELLING



HONEY-STAINED FIR PANELLING

FRENCH OAK-STAINED FIR PANELLING

VARNISHED FIR PANELLING

MEDIUM WALNUT-STAINED FIR PANELLING

SOUND INSULATION

DAMP RESISTANCE

FIRE REACTION

BIOCONSTRUCCIÓN

ALL OUR SANDWICH PANELS CAN BE MADE WITH 100% NATURAL EXPANDED BLACK CORK AGGLOMERATE

100% natural

CALIPLAC

CERTIFIED QUALITY

Caliplac Wooden Sandwich Panels are manufactured in accordance with strict quality controls that guarantee you are getting a construction material that provides a 100% effective solution for your needs, in terms of sound insulation, thermal insulation, damp resistance, decorative finish and cost reduction.

CE
CONFORME
AL ETE 09/0154

EOTA

ISO 9001
BUREAU VERITAS
Certification

CSIC

aepam
ASOCIACIÓN ESPAÑOLA
DE PANELES SÁNDWICH DE MADERA
CON NÚCLEO AISLANTE

INSTITUTO EDUARDO TORROJA

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