



Creator of outdoor solutions



Outdoor living

Decking      Swimming pools  
Fencing  
Railing      Furniture



## TECHNOLOGY AND KNOW-HOW

### A proven process with 20 years North American experience

Set up in 2001, **Silvadec** is the first company to have manufactured wood composite in Europe, under the American license from Strandex, world leader in this process for 20 years with licensees in North America, Europe and Asia.

### Realities

SME based in South Brittany, Silvadec remains **the only company** located in Western Europe to operate this process that recycles woodchip and sawdust in order to manufacture rot free and UV resistant products. The range is mainly designed for outdoor use for private or public projects (decks, marinas, fencing, pool decks, restaurant, hotel, offices, airport terminals,...). Wood Composite Forexia® is recyclable and perfectly suited for eco-building projects (LEED, BREEAM, HQE,...).



Since 2001, Silvadec is supported by ADEME (French Agency For Environment Protection).

### Future



Through a strong cooperation, Silvadec and its American partner Strandex, share competency and experience to imagine and design the most performant products to fulfill most outdoor needs and projects.

*The French Foundation and Nicolas Hulot Foundation for Nature and Mankind built a deck in Forexia® in the School of Biodiversity (Branfere Animal Park). The architects in charge of this project were sensitive to find environmental friendly materials. For this reason, they have selected the Forexia®, perfectly relevant material with the school way of thinking.*





## FOR INNOVATION

### Sustainable Development is our main motivation

Offer to our customers, simple, relevant and durable products is our ambition. New products are eco designed and our suppliers are carefully selected for their environmental and social policy. Our experience in decking manufacturing of wood composite Forexia<sup>®</sup>, enabled us to design and launch new applications like fencing, marinas, furnitures,... as well as different colors and surface finishing.

Very highly technical, the wood composite Forexia<sup>®</sup> is characterized by an exceptional resistance to outdoor conditions (doesn't fade to grey, doesn't rot, split, crack, twist and splinter's free); also it only requires minimal maintenance and no treatment, it resists chlorine, and doesn't contain any toxic product. On top of that, it is good slip resistant product.

This product is guaranteed 25 years against mold, fungus and insects attacks.

The installation doesn't require any specific tools; actually Forexia<sup>®</sup> is just worked such as solid wood.

The manufacturing process of Forexia<sup>®</sup> is environmental eco-friendly and does not generate any water, soil, air, sound or visual pollution.

Silvadec is the first French manufacturer of wood composite to obtain the PEFC label! This eco-label guarantees to our consumer that we only use wood or wood based products coming from forest managed durably.

Whatever your project is with Forexia<sup>®</sup> wood composite product from Silvadec, it's a guarantee of comfort, well being and environment friendliness.



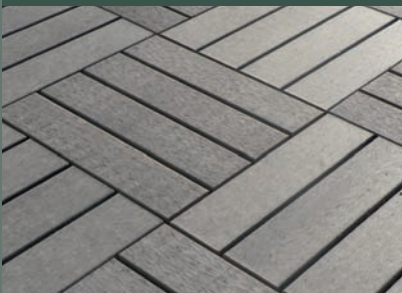


## DECKING

### *Our decks today and tomorrow*

#### EASY TO USE

The constant quality of the product avoids sorting out boards and is therefore time saving. Boards are available in a standard length of 4 m but can also be extruded in lengths up to 6m.



#### THE ONLY EXTRUDED TILE ON THE MARKET

It can be installed on its own or together with boards authorizing an enormous variety of potential patterns; the installation is quick and easy thanks to the patented fastening system.

#### QUALITY, GREAT LOOK, RELIABILITY, SECURITY

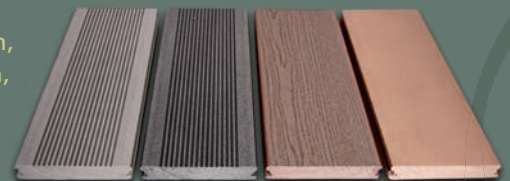
#### QUALITY

The physical properties of Silvadec boards enable easy installation of decks and fences with limitless possibilities of patterns.

#### GREAT LOOK

A wide range of colors and design, invisible fastening systems to suit to all different architectural needs.

Colorado Brown,  
Exotique Brown,  
Iroise Grey,  
Grey Anthracite

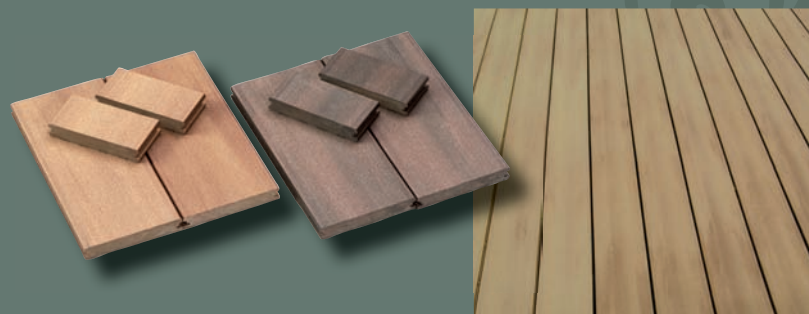


#### RELIABILITY

Because deck is an import choice, a place to live on its own and a financial investment, Silvadec warranties the reliability of its products for many years.

#### SECURITY

Free of any toxic product, splinters free and good slip resistance, decks in Forexia® take care of you and your children.





## FENCING

*Protect your privacy*

TY AND COMPETITIVENESS ARE THE MAIN ASSETS OF OUR DECKS AND FENCES.

### COMPETITIVENESS

An easy and quick installation, no need for future treatment in the future makes your investment worth for money.

### SOLIDITY

Boards are designed to resist an instantaneous load of 450KG/m<sup>2</sup>. The fence in Forexia<sup>®</sup> wood composite have been designed to resist winds up to 120km/h according to a test carried out at CSTB (Technical and Scientific Centre for the Building Industry).

The aluminum posts are thermo coated according to QUALICOAT trademark for a better durability.

### ECOLOGY

Boards in Forexia<sup>®</sup> are 100% recyclable.

### MAINTENANCE

No need of a specific treatment. Just a usual water washing is necessary.



### ESTHETIQUE

The fence board has a different finish on each side (one flat surface and one grooved surface) for more aesthetical options. The combination of wood composite with aluminum is very trendy.

Many colors are available as well as different boards or installations: solid, spaced, horizontal, vertical or diagonal,...

Manufactured in France, under patented technology, the fence is a European Registered Design.

### EASY TO USE

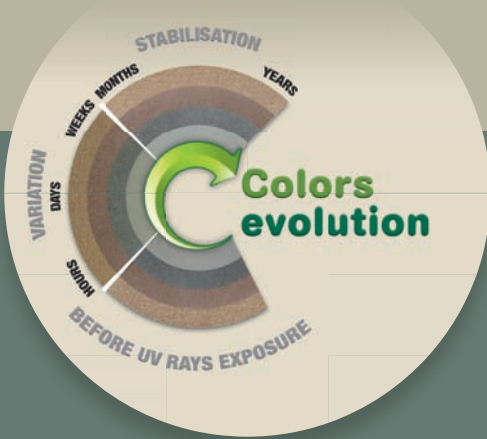
The fence is designed for different kind of grounds (sealing into concrete or fastening to an adapted support).

Different posts heights are available.



## TECHNICAL DATA

Wood Composite Forexia® has been tested under European Norms by the FCBA (Technical Centre for the Wood Industry) and CSTB.



### SLIP RESISTANCE:

Boards in Forexia® according to DIN 51097 Norm: ranks C. This is the best ranking for barefoot slip resistance.

### WEATHERING RESISTANCE:

Boards in Forexia® have very low moisture uptake. This is key for mold and mildew resistance.

### UV RESISTANCE:

The profiles are not really sensitive to UV light. This conclusion applies to thick walls (15 mm or more).

### ABRASION RESISTANCE:

The resistance to abrasion is similar to oak.

### FIRE RESISTANCE:

European test result: DS1.

### TERMITES RESISTANCE:

Wood composite Forexia® is termite resistant as termites die as they are unable to feed themselves.

### FUNGUS RESISTANCE:

Whatever fungus the wood composite is exposed to, it is extremely durable. Moreover, aging test does not affect this durability.

## COLOR VARIATION AFTER WEATHERING

Color from wood composite in Forexia® is durable.

It fades slightly without fading to grey or black.

Also during the first weeks after the material is exposed to outdoor, there will be a light brown yellow color shift. This process rarely takes longer than 6 weeks, after which it returns to its natural weathering. This shift is more visible on grey colors than on brown ones.

Therefore if one buy another board and install it few weeks after the other one, he will see a different color. These colors will equalize in time.

Tests	Values
Breaking constraint Norm EN310 Nominal	4521 N.mm 4636 N.mm
After accelerated aging (RDA)	3573 N.mm
After exposure to cold (- 25°C)	5711 N.mm
After exposure to heat (+ 60°C)	
Modulus of Elasticity EN310	4525 Mpa (resistance equivalent to the best particle boards, superior rigidity and isotropy in the 2 direction of the plane)
Compressive strength ASTM D 143	17 Mpa
Tension resistance ASTM D 638	8,3 Mpa
Moisture resistance EN317 – 24 hours	
Swelling	0,4 % (10% for a CTB-H panel)
Resumption of mass	1,4 %
Density	1217 kg/m3
Resistance to perforation (Brinell hardness)	59,6 Mpa (very resistant material)
Termite resistance EN 350-1/EN 318	No attack in the initial state and also over time. (RDA and EN321)
Resistance to fungus N34/EN318	Very durable material, the aging tests (RDA and EN321) do not affect the durability
Dimensional variations under variations of relative humidity 30% - 65% - 85 % (EN 318)	
Length mm/m 65 to 30% in the length	-1,34
Length mm/m 65 to 85% in the length	1,03
Thickness in % 65% to 30%	-0,18
Thickness in % 65 to 85 %	0,32
Dimensional variations under variations of temperature ASTM D 696	2,88* 10-2 mm/m/°C



## PUBLIC REFERENCES

*Many different applications*



Forexia® is very resistant even in very aggressive outdoor conditions; it is used by the world leader of outdoor swimming pools as well as the world leader of sailing boats.

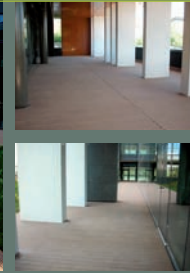
This modern material, can be trimmed, routed, sanded, screwed,... exactly like solid wood, the possibilities of outdoor installations is therefore endless.



## REFERENCES

FOREXIA® DECKING HAS BEEN USED IN MANY PUBLIC PROJECTS.

CITY SQUARES, SWIMMING POOLS, DOCKS, MARINAS, OFFICE SPACE,...



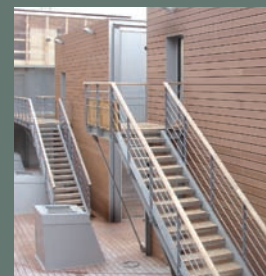
800 m<sup>2</sup> deck in Exotic Brown color for offices, *le Front Office de la ZAC d'Asnières (92).*



8000 m<sup>2</sup> deck Exotic Brown and Colorado Brown for the new airport building in Barcelona (*El Prat Airport*).

Architecte :  
Ricardo Boffil

Lorient - *Cité de la Voile Eric Tabarly*



City of Troyes  
*University Campus*  
(6500 m<sup>2</sup>)

Architect:  
Lipsky-Rollet

## ACKNOWLEDGMENTS

- Forexia® wood composite has been awarded as innovative product at BATIMAT 2003, major Building Show in Europe.
- Two years later, in 2005, Garden and Landscape sector also rewards Silvadec during its annual show.
- In November 2008, SILVADEC has received the Best New Product Trophy at the European Swimming Pool Exhibition in Lyon - Wellgreen – for the launch of its new fencing product.
- Silvadec is awarded during the 'Eco Trophées du Cadre de Vie', 2009 edition, annual awards for outdoor professionals commitments in sustainable development.
- Silvadec ranking N°1 en Eco Manufacturing, Eco Logistic and Eco Education, for its Elegance deck board.



For an environment friendly world.

**SILVADEC**

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