

CoreLite®

The Power of Composites

“The world’s most advanced composite core materials”



Number **1** for Quality

Since 1939

CoreLite Today



What do you think when you hear CoreLite?

- The Mosquito airplane?
- Kon-Tiki Expedition?
- Life vests?

Really? **That was decades ago.** Today, we are a new **CoreLite**. Possibly, not like you imagined.

For a **start**, we are in more than **10 different industries.**

Our leaders apply **Design Thinking**. We develop our own **robotic and information systems.**

We embrace **sustainability** and are giving back!

- We built the most **advanced** balsa wood's kiln drying system, enabling the **shortest time to kiln-dry** the balsa, and our technologies make structures **lighter, but stronger.**
- We're **transforming wind energy** and helping build the **boats** of the future.
- We have developed an incredible **radar absorbing material** for the **military.**
- We're revolutionizing **mass transit** transportation and teaching manufacturers how to make their structures **more durable** while enabling them to **capitalize on it.**
- We're helping **aircraft** spend **more time** flying.
- We're **reinventing** the **construction** industry.
- We're changing the **game** for **sports** and making **cars go faster.**
- We're using **proprietary robotics** in our **manufacturing** and **reinventing** composites.
- We're **predicting** what you will need and when, and we're **just getting started.**



We believe in customized composite solutions for you.

Each client's **need** is different...

but often, the product is **not**.

What if new composite technologies were...

...customized to your needs?

...delivered on-time?

...sustainable and organic?

...more effective?

...produced with extreme agility?

...designed to minimize your waste?

We engineer customized solutions to fit your needs

At CoreLite®, we **understand** that when working with composites, the “one size fits all” approach cannot be taken because every user's needs vary.

Therefore, we work together with our clients in a **holistic approach** to find a unique solution for their particular problem.

And then, we start producing with extremely **fast turnarounds**.

We believe that innovative core materials, combined with **agile manufacturing**, will optimize the way the world works with composites.

This idea drives everything we do at CoreLite®, making us the leading **balsa & foam core materials** manufacturer.

Our unique manufacturing technologies enables us to deliver the best quality, reduce time and cost, increase sustainability and customize each project.

Our goal is to enable our customers with more competitive advantage.



We are working for a greener world.



Some see a simple tree.
We see the potential that
changes everything.



CoreLite® core materials have been engineered to increase performance by making structures **lighter, stronger and more powerful.**

Offering a wide range of **End-Grain Balsa Wood Core** and **Foam Core** products, combined with engineering support, enables CoreLite® to deliver the right core material solution for your particular application.



Number **1** for Quality

Innovation that helps you gain more competitive advantage.



We believe in composites.

CoreLite® uses the latest technology to produce **BALSASUD® Core, CoreLite® Board, CoreLite® PET and CoreLite® PVC** in a completely innovative and sustainable manner that helps our customers be more competitive and keep the planet plentiful.

We have the technical knowledge and experience to provide professional guidance to our customers on how to best use our products for their particular application and help them **save time and money**.

Our *state-of-the-art kilns* enables our **excellent time to kiln-dry practices** so our balsa wood core comes with no drying defects and the correct moisture content, optimizing our process and overall quality. The result is balsa core that will not rot or delaminate when used properly.

What if you could reduce resin absorption?

To reduce *resin absorption*, CoreLite® has the capability of coating the balsa wood panels with a proprietary **Epoxy-based coating** system with ultra-modern UV coating machinery.

However, this is only one part of the process. According to our tests, approximately 50% of resin absorption depends on the gaps, which is why our panels contain virtually **no gaps**.

What if your kits were more cost-effective?

We use **lean manufacturing** techniques that make our kits much more cost-effective and extremely fast to produce. Combined with our convenient locations, we are able to provide **incredible agile turnarounds** for you.

Straight from the raw source to you.

BALSASUD®

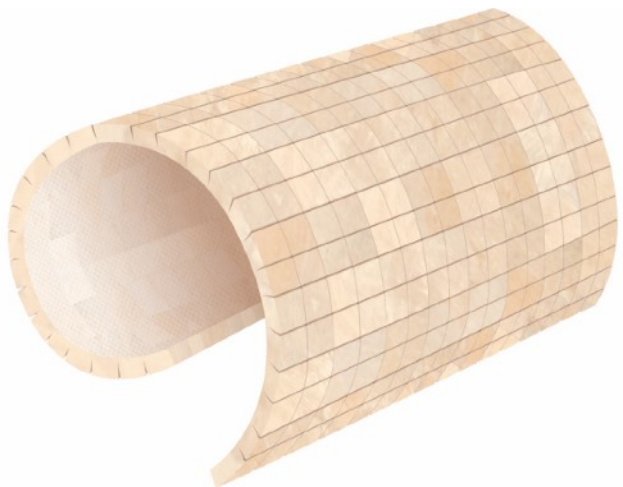


BALSASUD® Core is an End-Grain Balsa Core that has been perfected over the years to be renowned worldwide for its amazing **high quality**.

It also has remarkable physical properties such as:

- Outstanding **strength-to-weight** ratios (high shear and compression strength).
- A natural insulator, fire retardant and noise reduction material.
- Heat Deflection Temperature of over **320 degrees** Fahrenheit (160 °C)
- High **chemical resistance** (including styrene).
- Completely organic, sustainable and **renewable resource**.
- BALSASUD® Core is approved by **DNV GL** and **Lloyd's Register**.

The Balsasud S.A. facility in Ecuador is certified for **Forest Stewardship Council™ (FSC™)** Chain of Custody by the Rainforest Alliance to FSC™ standards'.



BALSASUD® Products	Balsa Grades	Avg. Density	Standard Dimensions
Rigid Sheets	Ultra Lite (UL)	6.5 Lbs./ft³	Width: 24" (610mm)
Flexible Sheets	Standard Grade (SG)	9.5 Lbs./ft³	Length: 48" (1220mm)
Balsa Core Kits	Heavy Weight (HW)	17.5 Lbs./ft³	Thicknesses: from 1/4" to 3" (6.4mm to 76.2mm)
BALSA FSC™ Certified	Pith Grade (PG)	Random Density	

Back to the basics. Pure nature.

CoreLite[®] Board



CoreLite[®] Board is a high quality, cost-effective, closed-cell PVC foam specially formulated to possess **high mechanical properties**, phenomenal **screw retention** and amazing resistance to moisture; it will not rot, mold or mildew

CoreLite[®] Board is a stand alone product and can be used without skins for a replacement for wood and plywood. CoreLite[®] Board is **27% lighter than Plywood**. This PVC foam board has excellent fastener pullout strength and high flexural strength and stiffness. It is also highly resistant to chemicals and temperature changes.

Engineered to meet the physical demands needed in transom boards, attachment points, floors, bulkheads, stringers, local reinforcements, molds, and tooling.



CoreLite [®] Board Products	More Options
CoreLite Board	Grooving
CoreLite Transom	Drilling
CoreLite Board Kits	Cut to Size

Standard Dimensions
Density (average): 28 Lbs/ft ³ (448 Kg./m ³)
Width: 48" (1220mm)
Length: 96" (2440mm)
Thicknesses: from 3/8" to 3" (9.52mm to 76.2mm)

CoreLite[®] Board will save you weight and will not rot, mold or mildew.

Provides much better performance and is easier to work with.

CoreLite® PET



CoreLite® PET is the next-generation foam core material. It is a cost-effective, closed-cell PET foam specially formulated to provide high mechanical properties. It is a 100% recyclable polymer foam with excellent performance.

- Remarkably high mechanical properties
- Completely **homogenous** cell structure.
- Exceptionally density consistent panel.
- **100% recyclable** material.
- High temperature resistance
- Thermoformable
- Low cost foam

CoreLite® PVC



CoreLite® PVC is a closed-cell, cross-linked polymer PVC foam formulated for **durability**, strength, and high processing temperatures. It has a very low water absorption rate and excellent chemical resistance.

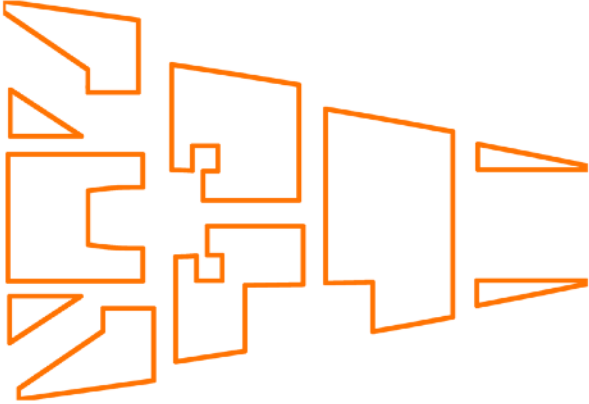
- Low water absorption
- Superb shear elongation
- Great strength-to-weight ratios
- Ideal for many **lightweight** applications
- Available in multiple densities
- Extremely **consistent** foam core
- Compatible with **multiple** resin systems
- Self extinguishing



Core Kits

CoreLite's kitting **concept** is simple:

From **plantation..** to **kit..** to **you**, delivered **fast**.



We are **inspired** by possibilities. And with the latest kit cutting technologies, we can precisely **cut-to-shape** our core materials. **Lean** manufacturing techniques allow us to optimize the design and obtain a higher yield for your **core kit** and deliver it much **faster**.

CoreLite® **engineering** works closely with you on a holistic approach to ensure that all your requirements are **met** and kit assembly is efficient.

Our convenient core material processing locations will **save** you significant freight costs.

Sandwich Panels



Aluminum



Carbon Fiber



Fiberglass

Why Sandwich Construction?

- Unique composite material
- Lighter structures
- Enhanced mechanical properties
- High strength
- High stiffness
- Design flexibility
- Thermal insulation
- Very durable

High Strength. Cost-Effective. Responsive

Colossal **innovation** for you. CoreLite's advanced sandwich process can combine many different core materials with numerous **skin options**, ranging from aluminum, carbon fiber, fiberglass, wood laminates and custom requirements.

Composite panels are used in architectural projects and in performance-driven structures to **reduce weight** and increase **strength**.




Composite materials reinvented around you.

Driven by **innovation**,
inspired by **possibilities**,
powered by **nature**,
built for **you**,
we are **proud** to make the most **sustainable** core materials on **earth**.

CoreLite® materials are designed for use in high performance applications and for solving unique and complex engineering challenges:

- Weight and density control.
- High compression properties to withstand heavy impacts.
- Excellent shear properties to carry dynamic loads.
- Superb FST (Fire, Smoke, Toxicity) properties.
- And much more.



We believe in sustainability.

Due to the strict quality standards required by our customers, we do not simply want to produce better balsa wood. We want to produce **much better balsa wood. We aim to make a difference in the world.**

The main purpose of our FSC™ certification is to assure that our balsa wood processing facility meets a set of rigorous environmental criteria.

Fully sustainable and organic BALSASUD® Core is the result of this approach.

CoreLite's strict **time to kiln-dry** practices ensure that the wood enters the kilns within the week of being harvested. We measure and weigh each timber, to deliver a more **density-consistent final panel**, that will avoid failure due to an inadequate-density zone within the panel.

The overall result of CoreLite®: unique high quality with very fast response times at lower costs.

imagine.
create.
enjoy.



CoreLite® wants you to **imagine** designs with endless possibilities and we want to help you **create** those stunning designs with freedom and customization.

Enjoy your finest masterpieces with CoreLite® core materials.

Helping turn **dreams** into reality **since 1939**.



Seek for our FSC™ certified products.



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