

Introducing the **NEW**  
**CF CARBON BAR™**  
HIGH STRENGTH - LIGHTWEIGHT

**AFFORDABLE**

**Cost** reduction 

Superior Performance - Cost Competitive

**Endless  
Sustainable Possibilities**

Carbon Bar outperforms traditional materials – like steel, aluminum and wood – and is now available at affordable pricing. When superior strength, lightweight and durability are critical in your product design and production processes, CF Carbon Bar™ is your answer.

**4X**

**Stronger  
than Steel**

**5X**

**Lighter  
than Steel**

**50%**

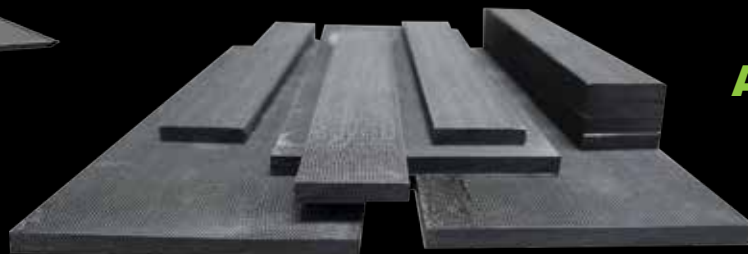
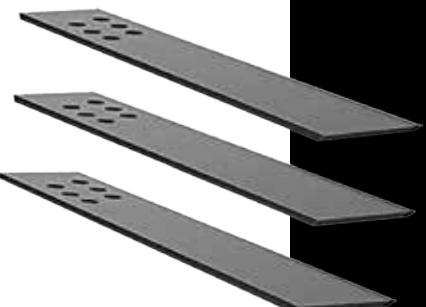
**Lighter  
than Aluminum**

**25X**

**Stronger  
than Wood**

Visit us at: **CFSpan.com**

**SPAN**  
**CARBON FIBER™**  
STRUCTURAL SOLUTIONS

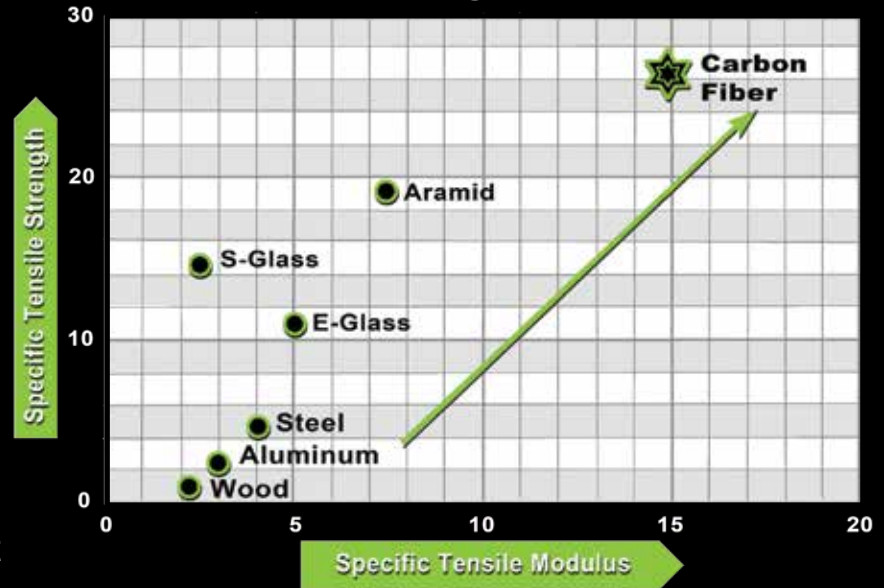


## Why Carbon Fiber?

Stronger material to make better and more reliable products:

- 4X times stronger than steel
- 5X lighter than steel
- Corrosion resistant
- Weatherproof
- Fatigue resistant
- Thermally stable
- Design flexibility
- Enables improved fuel efficiency
- Compatible with marine environment

## Superior Strength - Unmatched



## LIGHTWEIGHT

Material of choice for lightweighting



**3.2 lbs**

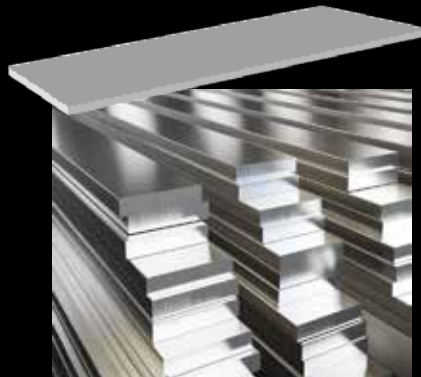
**STEEL**



Bar size: 12" X 4" X .20"

**1.1 lbs**

**ALUMINUM**



**0.7 lbs**

**CARBON FIBER**



## Proven Performance & Reliability

Material of choice for high-tech industries like aviation, automotive, aerospace, energy and infrastructure.



|                                   | ASTM A36 Steel     | Aluminum 6061-T4 | American Eastern White Pine Wood | Dow Akso's Carbon Fiber Laminate |
|-----------------------------------|--------------------|------------------|----------------------------------|----------------------------------|
|                                   | <b>Steel</b>       | <b>Aluminium</b> | <b>Wood (pine)</b>               | <b>CF Carbon Bar™</b>            |
| <b>Density</b>                    | 7.86 g/cc          | 2.7              | 0.35                             | 1.63                             |
| <b>Tensile strength (Ksi)</b>     | 73 ( max ultimate) | 35 (ultimate)    | 11 (ultimate - axial)            | 272 (Axial)                      |
| <b>Tensile modulus (Ksi)</b>      | 29000              | 10000            | 1209                             | 19725 (fibre direction)          |
| <b>Compressive strength (Ksi)</b> | 22 (@ yield)       | 8 (@ yield)      | 4.8                              | 160                              |
| <b>Compressive modulus (Ksi)</b>  | 29000              | 10000            | 9 (@ rupture)                    | 20595 (fibre direction)          |
| <b>Flex modulus (Ksi)</b>         | 29000              | 10000            | 1241                             | 19725                            |

Selected for use in planes, cars, windmills, etc., due to its superior strength-to-weight ratio and other attributes. CF Span is now bringing affordable Carbon Fiber solutions to your markets and applications.



## Affordability - Value

- Improved safety
- Superior product at affordable price
- Reduced maintenance and replacement costs
- Lighter weight leads to energy efficiency
- Reduced logistics costs
- Improved ergonomics
- Thermally stable



Visit us at: [CFSpan.com](http://CFSpan.com)

CF Span is ready to collaborate with you and explore new opportunities, building on your strengths to make your products even better. Our affordable CF Carbon Bars will give you a competitive advantage – and make a difference for you and your customers.

## KITCHEN SUPPORTS

- Countertops - Stone - Toe Kicks - Floating Shelves

Countertop Supports



Stone Supports

Floating Shelves

Custom Toe Kicks



## BUILDING & CONSTRUCTION



X Strapping

X Cross Bridging

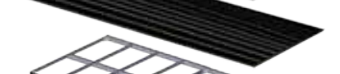
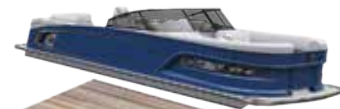
X Solid Blocking

Innovation in Action

## MARINE Pontoons/Boats



The Future  
of BOAT making



# & Industries

## Lightweight

The New Carbon Bar reduces weight and optimizes strength – resulting in decreased emissions, and better fuel efficiency and handling while maintaining safety and comfort.

### DOCKS Floating - Cantilever - Conventional

**SUSTAINABLE Solution**

**The FUTURE Floating Dock**

### INDUSTRIAL Parts & Pallets

**INNOVATION in Action!**

**Endless Possibilities**

### BRIDGE Structures

**Footbridges**

STRENGTHENING OF FULL SCALE CONCRETE BRIDGES WITH CF Span LAMINATES & WRAP

**Reinforcement**

### RECREATIONAL Travel Trailers

### E - MOBILITY Structures



## Durability

- Weather and chemical resistant
- Maintains form in hot/cold weather – no warping or change in size
- Temperature stability (low thermal expansion)
- Does not corrode or rot
- Impervious to water, snow, wind and rain

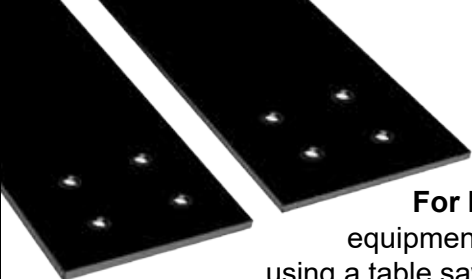


## Ease of Use

- Lightweight, safe and easy to manage in the field
- Flexible - easy to cut and size to fit
- Modular solution
- Minimal maintenance/upkeep
- Easy to build on existing materials to make them stronger, longer lasting
- Rapidly scalable
- Do it once – and you're done!
- Less prone to wear and tear compared to traditional materials

## Build on your Innovative Strengths

- 1 Easy to build on existing materials to make them stronger, longer lasting
- 2 Incorporate CF Span products with existing construction techniques to dramatically improve performance and results
- 3 Adds tangible value with minimal effort
- 4 Elevates your product and services with innovative technology that benefits your customers and will span far into the future
- 5 One of the strongest reinforcing fibers with higher stiffness per density than metal, plastic or wood
- 6 Adhesion without welding



## Versatile

**On-site drilling, cutting, handling, sizing and finishing**

**For best results** - standard carbide tipped construction tools or tile cutting equipment can be used to cut, trim and drill Carbon Bar material on the job site using a table saw, chop saw, drill or skill saw.



## Assembling & Fastening

**Bonding & fastening agents include:**

Commonly used adhesives like polyurethane, epoxy and acrylates. Common fasteners can also be used - predrilling is recommended when possible. Self tapping screws are also an option.

- Can add strength with multiple layers
- Adhesion without welding
- Can bond to metal, wood and stone



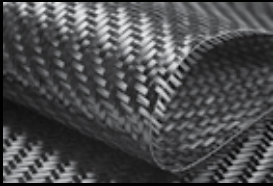
## Standard PPE



Standard PPE recommended



**Visit us at: [CFSpan.com](http://CFSpan.com)**



Explore the  
**POSSIBILITIES**  
with us!

## Weighing the **BENEFITS**

Our 1.5 inch I-Beam Carbon Bar solution can hold up a mature elephant weighing over 18,000 lbs. Our superior strength and lightweight features allow immense possibilities.



**Order today**

**(833) 4CFSPAN**  
**(833) 423-7726**



Visit us at:  
**CFSpan.com**

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