BOSTON MATERIALS

SPRING 2020

bomaterials.com



OUR MISSION is to proliferate composites in transportation & energy sectors to enable drastic weight reduction and significantly reduce our carbon footprint.

SUPERCOMP[™] CARBON FIBER IS THE KEY.



LIGHTWEIGHT COMPOSITES are key to a cleaner future

Driving Range of Popular Electric Vehicles (EV) In Miles



Carbon Fiber can reduce the weight of EVs by 40% to **boost range by 100+ miles**

Carbon Fiber has a broad appeal in many transportation & energy sectors





SUPERCOMP Carbon Fiber – a Boston Materials exclusive



Overall 30% cost reduction through raw materials &



PATENTED COMPOUNDING PROCESS extracts value from recycled fiber

Low-Cost Recycled Carbon Fiber





Standard Carbon Fiber





Vertically aligned recycled fibers



COMPETITIVE ADVANTAGE is higher performance & lower cost





OUR CUSTOMERS benefit from higher performance & lower cost



Proven to drive customer adoption during a recession

Customers increase their competitive advantage without significant R&D

Immediate 30% reduction in overall costs



MARKET

Carbon Fiber composites market is growing rapidly (12% CAGR)

\$31.2B 2024 Boston Materials long-term potential (2024+)

Target Markets that Supercomp addresses by 2024





Supercomp Target Markets by 2024	Displacing Other Composites	Displacing Metals
Sports & Recreation Beachhead	2020-2021	
Consumer Electronics Beachhead, High-Volume		2022
Aircraft Interiors Transportation	2023	2023
Electric Vehicles Transportation, High-Volume		2024
Wind Turbines Energy, High-Volume	2024	



SPORTS & RECREATION



Skis, golf clubs, hockey sticks, rackets, oars & more

25% reduction in Carbon Fiber cost

OEMs in Sports & Rec are very sensitive to cost of goods, especially in tough economic climates

Less vibration reported by skiers & snowboarders

Reduces strain and fatigue on the user, confirmed in independent study by University of Mississippi

3-D fiber reinforcement

Prevents material from distorting during handling, cutting, and other manual processes



CONSUMER ELECTRONICS



25% more cost allowance to boost fiber content

Increases stiffness and reduces unwanted flexing to improve user experience & durability

120% higher Z-axis thermal diffusivity

Spreads heat evenly so device is cool to the touch

50% recycled fiber content

Enables OEMs to meet sustainability targets



AIRCRAFT INTERIORS



10% to 20% reduction in weight

Each kilogram of weight removed saves a commercial fleet \$1M in fuel per year

25% reduction of Carbon Fiber cost makes thermoplastics resins economic

Thermoplastics enable automated manufacturing and they are fully recyclable, unlike the resins used today

120% faster heat dissipation

Improves safety from fire, smoke & toxicity in the case of a cabin fire



WIND TURBINES



15% cost reduction of large Carbon Fiber components used in turbine blades

"Every dollar counts, especially as the blades get bigger" – top wind turbine OEM

20% weight reduction

Supercomp made with fiberglass has 20% lower density than regular fiberglass, this enables larger blades that are easier to transport & install

50% recycled fiber content

Utilize Carbon Fiber sourced from end-of-life blades



ELECTRIC VEHICLES



25% reduction in Carbon Fiber cost

Allows Carbon Fiber designs to be cost competitive with steel designs, enabling drastic range improvements through reducing the weight of EVs (Slide 2)

71,000% higher Z-axis electrical conductivity

Shields critical electronics from interference, removing the need for metal layers that increase weight and the complexity during assembly

20% more lower frequency vibrations are absorbed

Conventional Carbon Fiber chassis have a harsh ride, but not the case with Supercomp



LEADERSHIP TEAM technical & commercial excellence

Anvesh Gurijala CEO & Founder

Leading Applications & Business Development

Invented Supercomp and the core manufacturing technology

Michael Segal COO & Founder

Overseeing Manufacturing & Expansion

Oversees operations, Supercomp production & manufacturing build-out

Kedar Murthy

Proven Commercialization Executive

• Successfully launched new materials at GE, Cabot & Lehigh Technologies (acquired by Michelin)

Gary Sharpless Board Member

30+ Years in Carbon Fiber Composite Sales & Marketing

• Founded and led Fiber Innovations from startup to 100-person manufacturing organization, eventually sold to EDO Corporation (later acquired by ITT) in early-2000s

Andrew Goldman

Proven Experience with Managing Rapid Growth at Tech Startups

• Technology and business development leader at the fastest growing 3D printing company (FormLabs) through startup phase to 600+ person company with \$100M+ revenue

BOSTON MATERIALS

THANK YOU FOR YOUR TIME!

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