



**Your Formula for Success**  
RESINS | GEL COATS | COLORANTS

# CASE HISTORY



## Striking the Right Note with Composite Guitars

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**Market Segments:** Recreational  
Specialty

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**Composite Application:** Electronic Guitar

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**Resin:** Vinyl Ester Blend

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**Manufacturing Process:** Silicone bag

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**Dimensions:** 35 inches long, 14 inches  
wide and 3½ inches high

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**Weight:** Just under 4 pounds

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A few volunteers from the clean water organization Raincatchers wanted to teach people in Haiti how to play the guitar during their downtime helping a local community build sustainable rainwater collection systems. They quickly discovered that playing guitar in Haiti's humid climate is difficult. Composite Acoustics®, a line of premium carbon fiber acoustic guitars, provided a solution: The guitars remain tonally consistent in any climate, ranging from the tropics of Haiti to arid, desert locations.

Composite Acoustics guitars are built entirely from composite materials. They feature a molded one-piece body that enables the company to shape the form of the guitar to the player's body. Heelless neck joints allow for shapes not possible with wood. To produce the guitars, Composite Acoustics combines extensive hand-crafting with cutting-edge technology such as CAD design and CNC machining. The end result is a light, strong musical instrument that stays in tune longer and never needs adjustment.

The guitars are made from carbon fiber and vinyl ester resins from AOC. While most CFRP applications use epoxy resins, Composite Acoustics selected vinyl ester resins. The vinyl ester blend, class A finish supplied by AOC has numerous advantages, including increased processing speeds,



*The Composite Acoustics guitar, made from carbon fiber and thermoset resin, was a finalist in the ACE Awards "Most Creative Application" category at CAMX 2014.*

## Striking the Right Note, continued

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room temperature cure, low viscosity for shorter mold fill times and complete fiber wet-out, and low laminate exotherm for improved surface aesthetics. The room temperature cure helps reduce energy costs typically associated with the epoxy/carbon fiber laminate post cure process.

“Carbon fiber is used on everything from airplanes to yachts,” says Fred Poole, general manager of Peavey Electronics. “We just took the next logical step—making musical instruments out of it. Our guitars are lighter, stronger and more comfortable thanks to the combination of carbon fiber and vinyl ester resins from AOC.”

Composite Acoustics guitars are perfect for every musician, from friends strumming out tunes on the front porch to touring musicians. “Climate to climate, state to state, it holds the same sound and same tune,” says country music artist Brantley Gilbert. “I couldn’t be happier with these guitars.

### About Composite Acoustics

Composite Acoustics is a division of Peavey®, one of the world’s largest makers and suppliers of musical instruments, amplifiers and professional audio systems. Founded in 1965 by Hartley Peavey as a one-man shop, today the company distributes more than 2,000 products to over 130 countries.

### About AOC

AOC is a leading global supplier of resins, gel coats, colorants, additives and synergistic material systems for composites and cast polymers. For more information on AOC technology, quality and service, e-mail [corrosionresins@aoc-resins.com](mailto:corrosionresins@aoc-resins.com), phone (866) 319-8827, or go to [AOC-RESINS.com](http://AOC-RESINS.com).