

# Creating A Corrugated Snowboard

*How Ernest Packaging Solutions created a 100%  
recyclable paper snowboard.*

*A unique challenge from an unlikely source.* “This project kept me awake at night ... for several nights. I was thinking about snowboards all the time.” For 15-year Ernest Packaging Solutions veteran and Director of Consulting Services Mike Martinez, thinking about snowboards isn’t normal. But then again, most challenges that come his way aren’t as unique as this one.

Signal Snowboards, founded in 2004, makes all of its boards in its home state of California. Signal approached Ernest Packaging Solutions as part of its Every Third Thursday video series, where the company makes a completely unique (and unthinkably cool) snowboard. Signal has made snowboard beer bong, snowboards created from discarded Christmas trees and more.

When they approached Ernest for a partnership, they wanted a snowboard made out of paper that was also completely recyclable.

Mike’s mind went to the versatile corrugated, but a project like this makes you start thinking about corrugated in a very different way. Is compression value important when crafting a snowboard? What blend of papers gives the best structure?



Package engineering experts like Mike know that corrugated is designed to give itself up should it take an impact. Corrugated absorbs the energy of the blow and collapses to keep the product inside safe. Running and jumping down a mountain is about as much of a catastrophic event as you can come up with.

“I started thinking about how I was going to get the bindings to work, how I could make it strong enough,” Martinez said. “I wondered what medium I wanted to use. We have lots of different flute sizes and paper combinations, but I needed flexibility that would resist creasing, folding and breaking.”

*Business as (un)usual.* Never one to back down from a challenge, Mike started testing solutions.

“My two designers, Jerry, Al and I tested about everything we run and cut twoinch samples from Ernest’s proprietary KTechnology board, which is a very highprofile flute, down to E flute, which is generally used in packages like gift boxes and fast food containers.”

In many ways, this challenge was unlike anything that had been brought to the team before, but that is the nature of packaging solutions: The supply chain is so diverse, each product so different, that being able to adapt and learn is part of the process. So Mike, along with Ernest

President Tim Wilson, got involved directly with Signal.

“I was surprised that the consultative process was completely applicable here,” Tim said. After sending samples to Signal for a performance test, “We had in our minds what we wanted to do with the snowboard, but it completely changed when we got to meet with Signal Snowboards. When Ernest is tasked with creating new packaging, the most important part is talking to people who are actually going to use it and what they want to accomplish. Inspiration for a solution comes from them.”

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Back in the lab, Mike laminated more than a dozen combinations of three or four different corrugated samples at a time. Ultimately, it was the smaller flutes that performed the best to the unique stresses a snowboard run would create.

Yet maybe the toughest challenge was keeping the corrugated from getting wet as moisture would have made for a short and soggy ride. Using past experience, data and testing with previous Ernest customers, Mike was able to find the right strength of corrugated that could hold up to the inevitable moisture, and coat the entire board in a polyurethane layer to keep moisture out.

Sean Hunter, senior consultant for Stretch & Shrink Film, assisted with another challenge. The cold was keeping the glue from drying right, so Sean fired up a demo heat tunnel used for shrink film and spent his time between appointments running the board through the heat tunnel so the glue would dry.

Finally, rigid “X” shapes were added to the top of the board – an idea from Tim – to give more structural integrity to the board.



*“Every time we glued samples together and laid it up, the results were getting better and better. We could have kept on improving it forever, but at some point, you’ve just got to put it out there on the mountain.”*



*At some point, you've just got to send it down the mountain.*

As with all packaging solutions, it's not just the answer, but how quickly you can arrive at it that is key. In just about two weeks' time, Tim, Mike and the team were able to go from gluing sample cuts to delivering a usable board to the adventurous people over at Signal.

"Every time we glued samples together and laid it up, the results were getting better and better. We could have kept on improving it forever, but at some point, you've just got to put it out there on the mountain," Tim said.

"That's the beauty of what this team is doing," Tim continued. "Our team gets pushed out of their comfort zone all the time with challenges, so much that it is just considered normal. Our team looks at all answers, all situations down the line and considers the entire lifecycle before making a recommendation. Ernest is built to rise to the occasion, and honestly, we get satisfaction out of being able to solve challenges."

No challenge is too big or too small, too hot or too cold, too outlandish or too hare-brained for Ernest Packaging Solutions. Why? Because we have the processes and the team that go the extra mile, even if that mile is racing down a mountainside on an experimental corrugated snowboard. Don't you want a packaging partner who can move your packaging forward like that?

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*To find packaging solutions that move you forward, contact Ernest Packaging Solutions today.*

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