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# PACKAGING DIGEST®

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flexibility with shrink labels **22**

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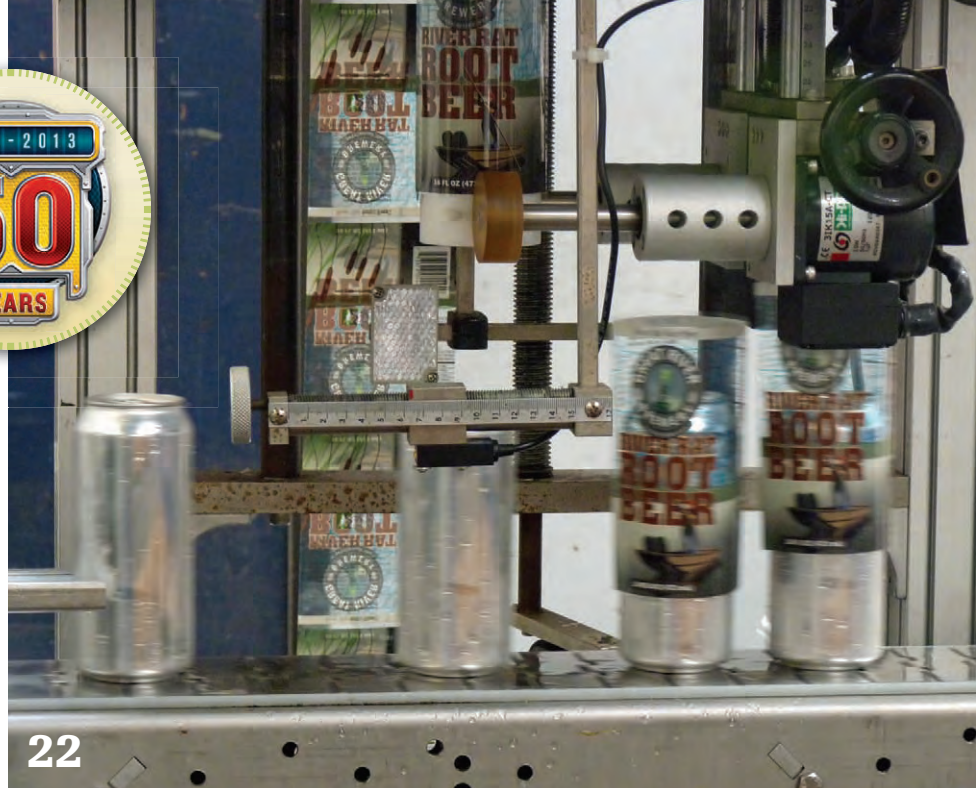
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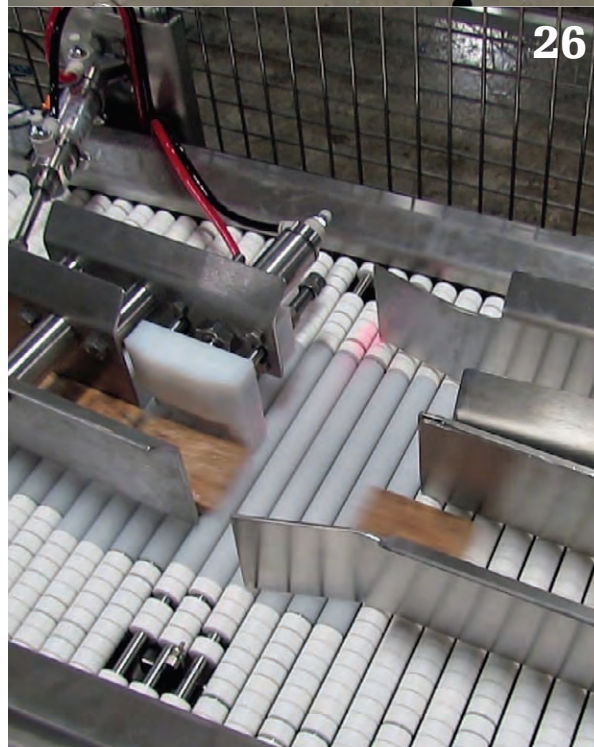
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COVER PHOTO BY JENNIFER FIELD





# The eyes have it

Klöckner Pentaplast partnered with packaging research experts at Clemson University to help set its sights on **CONSUMER PACKAGING PREFERENCES.**

**Jenni Spinner**, Senior Editor

How can a company determine the effectiveness of a particular package or material? One option: create a package, launch it and hope for the best—not the wisest choice, unfortunately, because the effort of planning, designing, executing and launching a package into the retail atmosphere is costly. Creating packaging that strikes a chord with consumers requires homework, not guesswork.

When the staff at Klöckner Pentaplast, a company specializing in plastic packaging films, was looking for concrete information on what types of packages and packaging materials resonate with shoppers, they looked into various possibilities that the company could accurately measure and gauge consumer attitudes and preferences. According to Chris Findley, director of marketing for Klöckner Pentaplast, the team researched various consumer research methods, finally honing in on eye tracking. This method measures how consumers scan visual environments, such as the personal-care aisle of a

The eye-tracking laboratory at Clemson University's CUSHop uses mobile tracking glasses from Tobii to gauge visual responses.

supermarket, to determine their preferences. Finding resources for eye-tracking data, however, proved challenging.

"I had performed some web research trying to locate available studies and

information," he says. "I kept finding general information about eye-tracking studies, but no really good study results."

Looking deeper, the team came up with Clemson University's CUSHop. Led by R. Andrew Hurley, Ph.D., assistant professor of packaging science, the team uses immersive and comprehensive techniques to test packaging designs and configuration, including eye tracking.

"Eye-tracking is just a biometric measurement tool, much like a stethoscope. An eye-tracker lets an experimenter know where a participant is looking, respective to time," says Hurley. "However, just like the stethoscope, the device is only as good as the experimental setup and the person using the tool."

CUSHop's eye-tracking laboratory puts study subjects in an environment that mirrors the setup of an actual store. Compared to the uncontrolled environment of a real-world store, the CUSHop's

thoughtfully set up situation makes it easier to get an accurate picture.

"We carefully set up experiments so variables are minimized, thus ensuring that we are analyzing our research question, rather than other factors—like brand bias, favorable position on the shelf, lighting and other environmental distractions," Hurley says. "We have a statistician on the research team who ensures that, even though participants may have looked 'longer' or 'quicker' at something, this is statistically significant and applies to a broader audience."

This controlled situation that so closely mirrors actual life provided the kind of realism Klöckner Pentaplast was looking for. "This isn't just standing in front of a projection screen or looking at products on a computer monitor," Findley says. "The setup that they have with the mobile tracking glasses, and the 'consumer' being able to walk the aisles just like they do on their daily shopping trips, is the technology that is the most representative of the real-world shopping experience."

The Klöckner Pentaplast team approached Hurley's team in the fall of 2010 and began discussion. In addition to giving Klöckner

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The test put different types of products in packages made of two materials—plastic clamshell and paperboard—side by side.





Pentaplast insight into how consumers react to packages constructed of their thermoform clamshell packaging products, the project gave CUshop's researchers the chance to delve into a non-branded study, in which subject behaviors wouldn't be influenced by familiar logos or brand names.

## Test environment

Before conducting the eye-tracking study comparing packaging materials, the two sides worked together closely to ensure the results would meet Klöckner Pentaplast's objectives.

"The collaboration that we had with Clemson in designing it up front was very important," Findley says. "We could have walked in and just said, 'This is what we want—A, B, C, D'—and they would have conducted it for us. Having the dialogue and working with them to design an effective test really removed a lot of the other variables—brand bias and other things—and let us focus in on exactly what we were looking for. That was beneficial."

The CUshop team culled a group of participants that comprised a typical cross-section of the American shopping public. The sample group included a total of 68 participants (36 male, 32 female) ranging in age from 18 to 65. The participant income ranged from less than \$20,000 (30.9 percent) to more than \$100,000 (17.6 percent). The group was evenly split below and above the U.S. gross national income per capita of \$43,000, and 76.5 percent of the people involved stated that they were the primary shopper in their households.

the paperboard packages placed in close proximity to their clamshell counterparts. Subjects donned **Tobii** mobile eye-tracking glasses, wireless devices that permitted subjects to freely move about the test area and scan the shelves while the CUshop team collected data.

## Clear results

According to the findings, study participants showed a clear preference for the clamshell packaging. Among the results:

- **Faster to find:** It took participants 40 percent less time to scan the shelves and locate the clamshell packages than with their paperboard counterparts.
- **Fixation counts:** The plastic packages were more 675 percent more likely to grab a shopper's eyes than paperboard containers.
- **Longer fixation duration:** Shoppers spent a great deal of time (343 percent more) looking at and considering the plastic packages in comparison to their paperboard equivalents.
- **More purchases:** Participant behavior indicated they were approximately four times more likely to take home a product housed in a clamshell than the exact same product put inside a paperboard container.

Further, after the eye-tracking portion of the research was finished, respondents were asked a series of exit questions to expand upon the information uncovered. Some findings:

- When asked, "When buying personal care products, which package do you perceive as being higher quality?" respondents answered "clear



A Clemson University student models Tobii tracking glasses like the ones used in the Klöckner Pentaplast study.

Pentaplast eye-tracking effort included some noteworthy data.

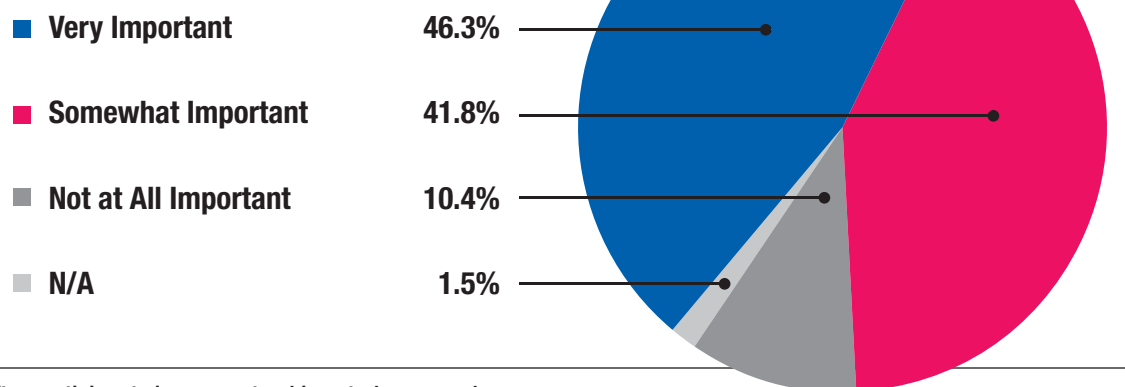
"My team and I were surprised at the high percentages found in this study," he says. "With numbers as large as 300 percent, it was interesting cross-referencing survey data with eye-tracking data. Many times, participants in studies are not cognitive of what they are looking at. We commonly place fictitious questions in the survey, for instance, 'What laundry detergent in the store was your favorite?' Even when there was no laundry detergent in the store, participants will commonly answer 'Tide' or 'Gain,' so in this study, it was interesting to see that participants remembered the test variables and reaffirmed their liking of one particular design over another."

## Lessons learned

According to Hurley, eye-tracking tests such as the one conducted with Klöckner Pentaplast can provide CPGs and packaging partners with a wealth of actionable knowledge.

"I firmly believe that testing in CUshop is a great way to complement a focus group or test the validity of a product concept," says Hurley. "Small companies and start-ups can use CUshop to determine whether or not a product and/or package is valid for the marketplace. Or, let's say you are considering a new logo, refreshed graphics or structure change. CUshop is much better than a focus group, as we collect actual, subconscious data, not participants' words or thoughts concerning things they may not be consciously aware of. Larger CPGs could use CUshop to measure the effectiveness of new strategy, branding and design. There are unlimited things you can do when you place people in a store and collect biometric data." **PD**

## Consumer preferences for clear packaging



After participants in an eye-tracking study scanned products in clear clamshell and opaque paperboard packaging, researchers asked, "When buying personal care products, how important is it to you to see the product in the package?" Responses indicated a clear preference for clear packaging.

Next came the test packages. Two basic types of packages were created to compare and contrast: clamshell plastic packages, and paperboard cartons produced by CUshop staffers; the Clemson team produced the graphic material for both types. The project created one of each type of package for three different products:

1. A three-blade shaving razor;
2. An electric toothbrush/oral care tool;
3. A plug-in home air freshener.

The packages were placed on shelves in a test environment replicating an actual retail store, with

plastic" more than 85 percent of the time.

- A vast majority (95.5 percent) indicated they had more faith in the tamper-resistant properties of plastic versus paperboard.

Hurley points out that the small-sample doesn't prove that one packaging material is inherently superior to another.

"We did not test a sample size large enough and variations broad enough to claim that plastic packaging is better than paper packaging," he says. "However, in this particular study, we saw significance between brands. This is a pilot study, and is useful, but paper can be used in much better ways. For instance, we compared a formed plastic package to a standard paperboard box, not a box with a window, or a unique structure, or a varnish."

Hurley indicates that the results of the Klöckner

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