

3M Announces Consumer Appliance Preference Results

3M Acoustic Solutions, a global supplier of acoustic products and solutions, recently conducted a study on consumer appliance preferences to track and understand the relationship between appliance noise and purchasing decisions.

The research firm IPSOS conducted online interviews for 3M, collecting 857 interviews from dishwasher and washing machine owners who either made their purchase in the last year or consumers who intend to purchase in the next two years. Respondents were 25-60 years old, home owners, and the decision maker regarding home appliances.

Researchers used the discrete-choice method to quantify feature preferences. This methodology simulates what consumers encounter when making purchasing decisions. Study results provided the ability to understand the importance of individual features on the overall purchase decision. Major findings included:

- 87% of consumers want quiet appliances and are more than willing to pay a premium to get them
- 84% of respondents say that noise reduction was “extremely or very influential” to their upcoming dishwasher purchase decision
- 45% of dishwasher owners run their machines at least once daily
- 94% of dishwasher owners or buyers believe sound reduction is extremely, very, or somewhat important
- 80% say including sound reduction technology in appliances is extremely, very, or somewhat important
- Only 6% purchasing dishwashers said noise was not important at all or not very important
- 29% of dishwasher owners say noise levels of currently available units do not meet or exceed their expectations

“The research also found that 85% of consumers are willing to pay more for a Thinsulate™-branded sound blanket and identified a price premium that can be achieved when including it with an appliance,” said Jim McKeivitt, account manager at 3M Acoustic Solutions. “This demonstrates how a consumer’s positive impression of a premium brand blanket can affect appliance selection.”

The 3M survey also shows consumer ranking of the importance of sound reduction in other appliances such as vacuum cleaners, air conditioning units, dryers, refrigerators, and others.

3M is sharing the research information with appliance manufacturers to help them better target consumers actively researching and purchasing an appliance.

A recognized leader in research and development, 3M produces thousands of innovative products for dozens of diverse markets. 3M’s core strength is applying its

more than 40 distinct technology platforms – often in combination – to a wide array of customer needs. With \$23 billion in sales, 3M employs 75,000 people worldwide and has operations in more than 60 countries.

For further information on the research findings, appliance manufacturers can contact McKeivitt at 651.736.4153. Please visit www.3m.com for additional information on Thinsulate™ and other 3M products.

Spherical Beamforming

Sound mapping in enclosed spaces, like car and aircraft interiors, is set to become easier and quicker with Brüel & Kjær’s new Spherical Beamforming system. Unlike other methods, which only map part of their surroundings, Spherical Beamforming provides a complete omnidirectional noise map. It is ideal for carrying out mid-to-high-frequency measurements inside vehicles, aircraft, rooms and industrial plants. It makes no assumptions about the nature of the acoustic environment.

Measurements are taken using a spherical array, which the operator places in a typical listener’s position, such as the driver’s seat of a car. The array maps noise from every direction, while 12 cameras mounted on the sphere take simultaneous pictures covering the entire field of view. These images are then used as background display for an acoustic map.

Spherical Beamforming is just one of many specialist acoustic solutions created as part of B&K’s PULSE 12 measurement and analysis platform. PULSE 12 is the latest version of the company’s PULSE data analysis platform and has been specially developed utilizing input from more than 250 specialist engineers worldwide. Since its release, PULSE has provided a stable and continually evolving analysis platform, allowing customers to implement staged upgrades, rather than changing to an entirely new system each time new developments become available. To date, more than 8,000 PULSE systems have been purchased globally. These are used primarily within the automotive, aerospace and telecommunication industries for research and development.

An overview of the complete range of measurement solutions encompassed by the PULSE system platform is given in the latest PULSE analyzers and solutions catalog. For more information about PULSE



B&K’s new Spherical Beamforming system makes noise-mapping easier in enclosed spaces. It provides a complete omnidirectional noise map.

12, please visit: www.bkhome.com or contact Brüel & Kjær North America at 800.332.2040

DLI Conducts Navy Ops

DLI Engineering www.dliengineering.com has been invited to participate in a fully automated, machinery assessment and condition reporting system with the U.S. Navy. Installed at one shore-side test facility and on two guided-missile destroyers, the system includes monitoring for more than 80 machines, 20 of which are instrumented for on-line monitoring.

With little or no action by ship’s crew, the system determines operating conditions and when correct, tests the equipment, evaluates the machine condition and if necessary, submits a maintenance action request (OPNAV 4790/2K).

The system is built around commercial, off-the-shelf components (COTS). The on-line component uses the DLI Watchman® SpriteMAX™. The portable system uses the DLI Watchman DCA-31™ hand-held data collector. Both systems feed data into DLI’s ExpertALERT™ system, which uses a mature automated diagnostic system. ExpertALERT was programmed to forecast repair needs up to two years into the future to dovetail with ship’s repair scheduling. If faults are determined, custom rules forward the information via OPNAV 4790/2K into the shipboard integrated condition assessment system (ICAS). It is then transmitted to the shore-side maintenance planning system for entry into the ship’s overhaul plan.



USS Ross (DDG-71) is an Arleigh Burke-class guided-missile destroyer in the U.S. Navy. The Ross is one of two DDG-class ships outfitted with DLI’s automated machinery assessment and reporting system.