

Review: Light, strong geof foam fills in Utah's gaps

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Legacy Parkway, Utah's State Capitol and The District Theatres in South Jordan - and maybe even your home - all have something in common.

These and hundreds of other structures, roadways and residences are made, in part, with the same substance as the fluffy white packing peanut - expanded polystyrene foam (EPS) - produced by Murray's ACH Foam Technologies.

Once merely for coffee cups and coolers, this lightweight, petroleum-based polymer patented by Dow Chemical in the 1950s is appearing in more places, from surfboard cores and furniture fill and theater seating to faux stone or stucco statuary.

It's made by using a process involving heat, steam, moisture and pressure. Then tiny white polymer beads are molded into a solid foam of differing densities.

"The denser, the stronger," said ACH Foam sales representative Terry Meier.

It's then either cut with a hot wire into various shapes and sizes for products like sheathing and drywall backer, left as "loose fill" packing material (better known as "packing peanuts") or molded into mammoth 3-by-4-by-24-foot blocks of geof foam, engineers' low-tech, lightweight way to reduce weight on underground utilities such as water and gas lines.

A very light substance, it's used to fill space without adding weight, only in areas where it's needed, Meier said.

For example, Todd Jensen, UDOT civil engineer and project manager for the \$685 million Legacy Parkway, figures covering sewer lines buried under cross street 1200 North in Bountiful with geof foam saved between \$3 to \$5 million it would have cost to relocate the lines.

Plus, "it allows us to build highways at a much-accelerated pace," said Jensen, because settlement is nearly non-existent. Years ago, in the '60s during Interstate 15's construction, soil had to settle up to two to three years, Jensen said.

"It's kind of like Legos, actually," said former Grant Mackay Co. project manager Ted Siri, who used 200,000 cubic feet of foam on the Utah State Capitol's parking garage project.

Workers stacked large blocks in a 30-foot-deep excavation site to reduce lateral pressure on an underground wall.

From Southern California to Atlanta, local entrepreneur Dana Daniels, who owns Stadium Seating Conversion, has used foam for each of an estimated 100 theaters he has installed, including The District's 20-screen movie complex in South Jordan.

It's cheaper and less time-consuming than its older alternative - pre-cast concrete - he says. "You can do all the work off a flat floor," without a crane to disturb delicate audio-visual wiring, sprinkling systems and other materials, Daniels said.

The 12-to-14-inch steps are then covered with a thin veneer of concrete.

In a similar way, artists at Draper-based Western Architectural Services have been crafting, and then covering, intricate life-size foam replicas of world-renowned landmarks like Rome's Trevi Fountain for Caesar's Palace in Las Vegas, as well as those listed above. "We built the pyramids in a lot less time than the originals," joked Vice President of Operations Scott Jones. "We can replicate anything [clients] want."

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