

R-Tech Wall System Arizona Deep Residential Retrofit

1951 abandoned house is transformed into an energy-efficient home.

INSULFOAM[®]

A **CARLISLE** COMPANY

The largest publicly traded EPS manufacturer in the United States.



Using strategies including the R-Tech Wall System, the home was able to achieve a high Gold rating certified under the Phoenix Green Construction Code.



BEFORE



Project Profile: Arizona Deep Residential Retrofit

This Arizona residential retrofit became the first project to be certified under the Phoenix Green Construction Code, receiving a Gold rating from the program. The deep retrofit project aimed to conserve water and energy, on an existing 1,000 square-foot, abandoned house originally built in 1951, and transformed it into a cutting-edge, energy-efficient home with 1,970 square feet, four bedrooms, and two bathrooms. Using strategies including Insulfoam's R-Tech in the wall assembly the home was able to achieve a high Gold rating. The R-Tech insulation panels are large and can be assembled in the wall system continuously to reduce the amount of gaps in insulation for cold air to escape, or warm air to come in. Reducing gaps and increasing insulation was key to this home being able to reach its energy goals.

Specify Insulfoam R-Tech in your projects:

ENGINEERED EPS
Versatile, Durable, Recyclable

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R-Tech Wall System Deep Residential Retrofit

The Problem:

The project started with a 1951 home that was stripped and abandoned for over 5 years when it was acquired. The project team's goals were to turn this 50's style home into a sustainable residence of strategies on a budget of \$95 per square foot, all while in the Arizona heat. The project team took the 1,000 square foot ranch style home and completely renovated the existing living space top to bottom, while adding another 900 square feet of living space. Insulfoam R-Tech was chosen to reach its goals of large reductions in energy use and reduce landfill waste during the construction process.

The R-Tech insulation panels are large and can be assembled in the wall system continuously to reach the following goals: air infiltration and moisture penetration are eliminated, thermal bridging and thermal shock is greatly reduced, surface cracking is minimized, and the EPS material does not sustain mold and mildew growth. These benefits lead to lowered operating costs to improved occupant comfort.

R-Tech has no thermal drift. Designers are well served knowing the R-Tech thermal properties will remain stable over its entire service life.



Insulfoam EPS:

From foundation to roof and everything in between

- Roof Insulation Systems
- Below Grade & Under Slab Insulation
- Wall Insulation
- Geofoam - Transportation & Earthworks
- SIPS: Structural Insulated Panels
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- O.E.M.: Garage Doors, RVs, Cold Storage & More
- Commercial & Residential

The Solution: R-Tech Wall System

Environmentally Friendly: R-Tech contains no dyes, may contain recycled material and the foam core is 100% recyclable.

User Friendly: R-Tech can be ordered with the InsulSnap™ feature which scores the product longitudinally at any pre-ordered interval (commonly 16" or 24" o.c.). The InsulSnap feature minimizes labor by enabling the installer to cleanly break the product at the desired width while also minimizing product breakage and waste.

Insect and Mold Resistant: R-Tech is manufactured with an inert additive that deters termites and carpenter ants. R-Tech does not sustain mold and mildew growth.

Water Resistance: R-Tech facers provide a surface that is virtually impervious to moisture

Jobsite Durability: With a polymeric facer on either side of the R-Tech, it is an extremely flexible and durable insulation.

Stable R-Value: R-Tech has no thermal drift. Designers are well served knowing the R-Tech thermal properties will remain stable over its entire service life. R-Tech is eligible for an Insulfoam 20-Year Thermal Performance Warranty - a warranty that's not prorated or limited to a percentage of the published R-Value.

Cost Effective: R-Tech is typically less expensive than other comparable insulation products.

Proven Performance: The same fundamental chemistry has been in use since the mid-1950's, so the actual performance of the product is well known.

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