

CASE STUDY

THE ENVIRONMENT DICTATES CHANGE IN PLUMBING SYSTEMS

Centex Homes with AMPAM Keith Riggs Plumbing Phoenix, AZ

Established: 1948

In many regions around the county, soil conditions are causing builders and contractors to investigate and change their plumbing materials. One homebuilder in the metropolitan Phoenix area, Centex Homes, which consistently ranks among the largest single-family home producers in the United States, was finding that acidic soil was causing incidences of corrosion in copper plumbing, especially under the slab.

When Mike Traylor, division president for Centex in Arizona, decided to investigate other plumbing options, he was wary about changing his building materials. After all, he had a lot at stake since his company takes pride in its excellent, long-standing reputation as one of Arizona's oldest and best-known homebuilders. The legacy of the Traylor family began when Mike's grandfather began building homes in and around



Phoenix in 1948. This tradition was passed to Mike's father Dell, who began building homes in the mid-1960s under the name of Gold Key Homes, and the tradition continued when Mike took over the company in 1984. Gold Key Homes joined Centex Homes in early 1990.

Centex Homes operates homebuilding divisions in more than 50 metropolitan markets across the United States. The company has more than 100 employees in the Phoenix area. They build an average of 650 homes in Arizona each year. Approximately 85 percent of the homes built are for single families, while the remaining projects are condominiums. The homes, ranging from \$70,000 to \$300,000, are built for a variety of homebuyers. Centex projects include planned golf course communities such as Encanto at The Legacy in Phoenix, to distinguished planned communities of Castle Chase and Armonico in Scottsdale, Ariz. In each project, Centex tries to add the most value in every home from cabinets to the plumbing system behind the walls.

During his investigation in 1997 for an alternative plumbing system, Traylor found additional potential problems with his current copper system. Traylor said, "We knew that leaks under the slab can happen quickly. In fact, in isolated incidences, the copper pipe corroded enough to create major problems. In some cases, we found calcium was building up inside the copper pipe in some of the homes, which was slowing down the flow of water."

Experienced Resource

To avoid potential problems and help determine if another plumbing material could be used, Traylor met with Gerry Riggs, president of AMPAM Keith Riggs Plumbing, Mesa, AZ. Established in 1948, Riggs Plumbing is one of Arizona's largest and oldest plumbing contractors with more than 350 employees and 130 crews. They work on more than 140 projects each year for many of the leading builders in the Phoenix area.

Riggs had extensive experience working with alternative plumbing materials. Back in the early 1990s, Gerry Riggs determined that builders in his area were interested in alternatives to copper based on incidences of copper piping leaking. To determine alternatives, he went to Colorado to talk with builders and contractors about plumbing materials. He found many of them using FlowGuard Gold® CPVC plastic plumbing systems.

CPVC plumbing systems exceed ANSI/NSF Standard 61 for drinking water quality with no pH level restrictions. Unlike copper tubing, CPVC systems maintain their properties in high acidic levels. In fact, CPVC is the only plumbing system that does not contain any metal insert fittings in the entire system. With homeowners demanding reliable and safe plumbing systems, CPVC pipes maintain the pristine level of water quality coming into the home.

CPVC plumbing systems also meet all model code approvals, including the International Plumbing Code, International Residential Code, BOCA National Plumbing Code, Standard Plumbing Code, Uniform Plumbing Code, CABO 1- and 2- Family Dwelling Code and Canadian Plumbing Code.

"After talking with a couple of Colorado homebuilders and reviewing their results," said Riggs, "we decided to get more information from the manufacturer, which resulted in opportunities to meet and exceed builder and consumer needs."

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Type of Construction:
Residential -
Single Family

Installation Type:
New

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PIPE & FITTINGS
NOT A DROP OF DOUBT.



FLOWGUARD GOLD®

Riggs met with a Lubrizol representative for FlowGuard Gold® CPVC plumbing systems who provided technical data and introduced him to the many advantages of CPVC plumbing systems, including improved water quality, reliability, reduced noise, and faster installations. He told Riggs about FlowGuard Gold® CPVC University, a Lubrizol training program to teach contractors to install CPVC plumbing systems effectively.

"Besides corrosion resistance, we found that the biggest benefit to FlowGuard Gold® CPVC was eliminating the potential of pressure leaks at solder joints," said Riggs. "Installing CPVC plumbing systems does not involve any trial and error. We just applied the techniques for installing copper, only without the torches and heavy equipment. This has resulted in a material and labor cost savings over copper. We are able to pass those savings to the builder and homeowner."

CPVC plumbing systems do not require torches or crimping tools like copper and PEX systems. A one-step joining system can be pressure tested in as little as 10 minutes. The FlowGuard Gold® CPVC plumbing system includes pipe, fittings and valves.

Riggs quickly began using CPVC plumbing systems in the early 1990s. He realized other benefits to the systems, which included that he no longer had to worry about product theft related to copper, the price of CPVC has remained consistent for the past 10 years, and the system performed well in all types of environments.

"We are very confident in the performance of CPVC plumbing systems. That's why I have specified FlowGuard Gold® systems in the two homes I had built for my family," said Riggs. "We will install copper if necessary, but we prefer using CPVC."

Easy Change With Customer Benefits

Since 1997, based on Riggs' input and experience, Traylor has specified FlowGuard Gold® CPVC plumbing systems in all Centex homes where the product is approved by the various city codes in the metropolitan Phoenix areas.

"If the city gives us the choice between CPVC and copper, we use CPVC. In addition to the material not corroding like copper, we found that CPVC plumbing systems also offer better insulation and energy savings than copper for homeowners," said Traylor.

Unlike copper piping materials, the thermoplastic properties of CPVC plumbing systems provide insulation to reduce condensation and keep hot water hotter and cold water colder than copper, resulting in less energy loss through the wall of the pipe. This can save homeowners money on heating and cooling bills and virtually eliminate sweaty pipes.

Since the pipes won't "sweat", Centex Homes specifies Riggs Plumbing to install plumbing pipe in ceilings instead of under slabs, which is not possible with copper. Overhead installations allow the plumbing system to be easily installed and maintained.

The thermoplastic properties of CPVC systems also provide a system that is four times quieter than copper, with less resonance, reducing the sound of running water and the potential of the pounding noise of water hammer. "If I had my way, every house we build would have FlowGuard Gold® plumbing systems. Our customers are very satisfied with their CPVC plumbing systems, and that's very important to us," said Traylor. "We take pride in our excellent, long-standing reputation of building homes for over 50 years. We want to maintain that tradition in every house we build."

Since Lubrizol's development of CPVC plumbing systems over 45 years ago, more than three (3) billion feet of CPVC pipe has been installed in homes, condominiums, buildings, apartments and hotels, including twelve (12) million homes. For more information on the FlowGuard Gold® plumbing system, including pipes, valves, joining cement, caulks, sealants and tools, call 1-888-234-2436, X7393, or visit www.flowguardgold.com.

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